







HOW to PLAY

ZENDO

Designed by Kory Heath

 Complex	3-6 players 	
 Slow		
 Rainbow Stash x 5		
 20 black stones, 20 white stones, 20 green stones		

*Does a dog have Buddha-nature?
This is the most serious question of all.
If you answer yes or no
You lose your own Buddha-nature.*

Introduction:

Zendo is a game of inductive logic in which the Master creates a rule and the Students attempt to discover it by building and studying small arrangements of Looney Pyramids. The first student to state the rule correctly wins.

Number of Players: 3-6

Equipment:

5 Rainbow Stashes, 60 tokens (20 each of black, white, and a third color)



Setup: Choose someone to be the Master. The other players are the Students. Give each Student a black and a white stone, to serve as “answering stones”. The remaining black and white stones are “marking stones”, and the stones of the third color are “guessing stones”. Put all of the marking stones and guessing stones in front of the Master, and put all of the pyramids into a global stash within reach of all the Students.



The Master must choose a rule, create two initial koans, and pick someone to go first.

Koans: Over the course of the game, players will create different arrangements of one or more pyramids on the table. Each arrangement is referred to as a “koan”, pronounced “KO-ahn”. Koans can be set up in any fashion, as long as they don’t touch other objects or other koans.

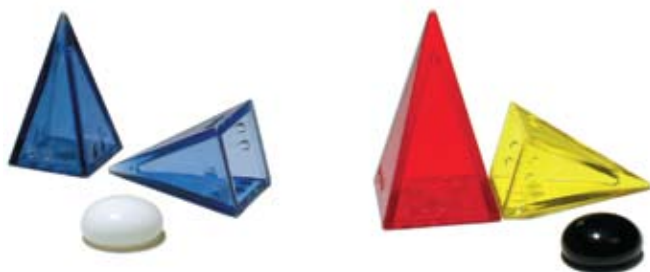
Choosing a Rule: When you are selected to be the Master, your first task is to devise a secret rule that will be used during this game of Zendo. For your first several games, you may want to use one of the rules listed on page 7 under “Rules For Beginners.” These are good rules for new players. When the players are more experienced, you can invent your own rule.

According to your rule, some koans will “have the Buddha-nature”, and others will not. For the Students, the object of the game is to try to figure out what your secret rule is. As the Master, your job is to act as facilitator; you are not actually a player, and you are not in competition with any of the players. Here are some rule examples:

- **A Simple Rule:** A koan has the Buddha-nature if and only if it contains one or more green pieces.
- **A Very Difficult Rule:** A koan has the Buddha-nature if and only if it contains an odd number of pieces pointing at other pieces.
- **A “Negative” Rule:** A koan does not have the Buddha-nature if it contains exactly three pieces touching the table; otherwise it does.

Initial Koans: As the Master, start the game off by building two koans in the middle of the playing field. One should have the Buddha-nature according to your rule; place a white stone next to it. The other should not; place a black stone next to it. You will be marking all of the koans in this way throughout the game.

Starting koans need not be complicated, even with experienced players.



Turn Order for Students: Each student's turn consists of the following steps:

- 1) Build a new koan
- 2) Say "Master" or "Mondo"
- 3) Optionally, try guessing the rule

1. Build a Koan

- Create a new koan using one or more pyramids from the global stash.

2. Say "Master" or "Mondo"

- **Master:** The Master will immediately mark the new koan with a black or white stone.
- **Mondo:** All Students must guess if the new koan has the Buddha-nature or not. Pick up your own answering stones and hide your answer (black or white) in one fist. Hold that fist out over the playing field, and wait for all of the other Students to do the same. When everyone is ready, reveal your guess. The Master will mark the koan with the correct answer, and will award a guessing stone to each player who answered the Mondo correctly.



3. Guess the Rule (optional)

- **Make a Guess:** If you have any guessing stones, you may choose to spend one or more of them to try to guess the Master's rule. Give a guessing stone to the Master and then state your guess as clearly as you can.
- **Clarify the Guess:** If the Master does not fully understand your guess, or if it is ambiguous in some way, the Master will ask clarifying questions until the uncertainty has been resolved. Your guess is not considered to be official until both you and the Master agree that it is official. At any time before that, you may retract your guess and take back your stone, or you may change your guess. If any koan on the table contradicts your guess, the Master should point this out, and you may take back your stone or change your guess. It is the Master's responsibility to make certain that a guess is unambiguous and is not contradicted by an existing koan; all Students are encouraged to participate in this process.
- **Master Disproves Guess:** After you and the Master agree upon an official guess, the Master will disprove it, if possible. The Master builds a koan which has the Buddha-nature but which your guess says does not, or builds a koan which does not have the Buddha-nature but which your guess says does.
- **Repeat:** Once the Master has built a counter-example and marked it appropriately, you may spend another guessing stone, if you have one, to take another guess. You may spend as many of your guessing stones as you wish during this portion of your turn. When you are finished, the action passes to the Student on your left.

Winning: If the Master is unable to disprove your official guess, you've achieved enlightenment: you've discovered the Master's secret rule and have won the game!



Selecting a Master: There are no official rules about selecting a Master. If one person has many new rules to try out, that person may be selected as the Master for the entire evening. If everyone has rules to try out, simply take turns being the Master, or specify that the winner of each game becomes the next Master. If you have one experienced player in a group of new players, that player ought to be the Master, at least for the first few games.

Creating Rules: When you are the Master, you may use any rule that you can imagine, though you should always try to select a rule that is not too difficult for the current group of players. When in doubt, use an easier rule. Beginning Masters vastly underestimate the difficulty of most rules, and players do not enjoy games where the rule is too difficult. Many rules that sound interesting can actually result in frustrating games.

There are some official restrictions, which are all consequences of a basic relational property of koans: a koan is not allowed to refer to anything outside of itself, in space or in time. This has several implications:

- **No Outside References:** You may not make a rule that specifies whether or not a piece is pointing at one of the players, because players are things that exist outside of koans. You may not make a rule that specifies whether or not a piece is pointing in an absolute direction (say, toward one side of the room), because absolute directions are also things that exist outside of koans. Here's a good rule-of-thumb: rotating any individual koan, or even moving it into another room, should not cause its status to change.
- **No References to Other Koans:** You may not make a rule in which the status of a koan is affected by the contents of other koans on the table. For instance, the rule "a koan has the Buddha-nature if it contains the same number of pieces as any other koan on the table" is illegal, because koans cannot refer to each

other in this fashion. Think of each koan as a tiny microcosm—a small, isolated universe that cannot refer to anything but itself.

- **No References to Time:** Koans are isolated in time as well as space. You may not make a rule that refers to pieces which used to be in a koan, because a koan's past state is something that exists outside of that koan in time. You may not make a rule that has something to do with the order in which pieces were added to a koan. Here is another good rule-of-thumb: as the Master, you should be able to leave the room while a Student is setting up a koan, and still be able to mark it properly when you return. Note that all pieces of a given size and color are considered to be identical and interchangeable.
- **Referring to the Table:** The playing surface itself is considered to be part of a koan—it is legal, for instance, to make a rule that specifies whether or not certain pieces are touching the table. However, you may not make a rule that refers to some pattern or design on the playing surface, nor may you make a rule that refers to the edges of the surface. Consider the playing surface to be a flat, featureless plane that extends outward in all directions, "whose center is everywhere and whose circumference is nowhere", as the philosophers might say.
- **No References to Stones:** The black & white marking stones are not actually contained within koans, so you may not make a rule that refers to them.

Building Koans: When you build a koan, you may arrange its pieces in any fashion, as long as they do not touch another koan's pieces or any other foreign objects, including marking stones. It is legal to lean a koan's pieces against each other or to balance them precariously on top of each other. The Master may move any existing koan in order to help distinguish it from another one or to clear space for more of them. The Master should make the moved koan as similar as possible to the way it was before. The Master may disallow a koan from being built if there is not enough space for it.

Breaking Down Old Koans: If, when building a new koan, the pieces you'd like to use are not available, tell everyone which pieces you're looking for. The Master must decide which koan or koans to break down, if any, taking into account the input of all of the Students as much as possible. If all of the Students agree to allow a certain koan to be broken down, the Master should always do so. If, when building a counter-example koan, the Master wants to use pieces that are not available, the Master will tell everyone which pieces are needed, and will decide which koan or koans to break down, taking into account the input of all of the Students as much as possible.

Marking Difficult Koans: The Master's rule must provide an answer for any koan that a Student could possibly build. Sometimes the Master has difficulty deciding how a certain koan ought to be marked, because of some physical ambiguity, such as "is that red piece just barely pointing at that blue piece, or is it just missing it?" In such cases, the Master must make a silent judgment call, and then mark the koan appropriately. The Master must not indicate that a judgment call has been made.

Asking About Koans: Players may always ask the Master clarifying questions about the physical features of existing koans, such as "Master, is that small green piece pointing at the medium red piece?" or "Master, which pieces are touching that yellow piece?" These questions are free and may be asked at any time. The Master must always answer them, even if they have no bearing on the actual rule. Students may even ask about a koan before they are done building it, such as "Master, is this new koan just like this old one, except that the red piece is now blue?" In all matters of uncertainty, the Master's judgments are final.



Guesses and Previously-Existing Koans: If none of the koans on the table can disprove a particular guess, but a previously existing koan that has since been broken down would disprove the guess, the guess still stands and the guessing stone is not returned. Only koans actually in play are used to determine whether a guess is valid. The Master can build the previous koan again as the counter-example, or may build something entirely new.

Katsu: As a Student, you are never allowed to touch a marking stone, or a koan that has a marking stone next to it. If you ever accidentally knock over or disturb a koan's pieces, someone should say "katsu!" in order to indicate that the board has been disturbed. The Master must then restore the table to its previous state. There is no penalty for katsu.

Master's Mistakes: It sometimes happens that a Master makes a mistake which compromises the fairness of the game for the students. When such an error is discovered, any player may immediately demand that the game be terminated. If all players agree to continue the game, the Master should correct the mistake in the appropriate manner.

- **Mismarked Koan:** The Master might mark a koan incorrectly and fail to fix it before a player has taken another action. If this happens, the Master should fix the mistake as soon as it's noticed.
- **Misunderstood Guess:** The Master might not completely understand a Student's guess and make a koan that does not disprove it. If this happens, the new koan must remain on the table and the Master must make another koan after the ambiguity is resolved. As Master, you should understand a Student's guess well enough to play another game of Zendo with it as the secret rule.
- **Disproving Koan on the Table:** The Master might miss the fact that one of the koans on the table disproves the Student's guess and create another koan to disprove it. In this case, the guess stands, the new koan remains, and the Student does not get the guessing stone back. All Students are encouraged to help the Master confirm that a Student's guess works with all the koans on the table.

TERMINOLOGY

The following terms and definitions can make it easier for Masters and students to conceptualize and discuss rules.

Color: The standard Zendo colors are red, yellow, green, and blue, though other pyramid colors can be added or substituted. A koan “contains a color” if it contains any pieces of that color. A rule will occasionally refer to the “number of colors” contained within a koan, or within a subset of its pieces.

Size: There are three sizes of pieces: small, medium, and large. A koan “contains a size” if it contains any pieces of that size. As with color, a rule will occasionally refer to the “number of sizes” found within a koan, or within a subset of its pieces. Unlike color, sizes are related to each other in specific ways, such as “larger”, “smaller”, “largest”, and “smallest”. A koan always contains a “largest size”, and all of the pieces of that size are referred to as “the largest pieces in the koan”; similarly, a koan always contains a smallest size, and all of those pieces are referred to as the smallest pieces in the koan. If a koan contains exactly one size, those pieces are both the largest and the smallest pieces in the koan.

Pip Count: Each piece is marked with “pips” to indicate its size—one pip for a small piece, two for a medium piece, and three for a large piece. This number represents a piece’s “value” or “pip-count”. A group of pieces has a pip-count equal to the values of all its pieces added together. A rule may refer to the pip-count of an entire koan, or any subset of pieces within a koan. For instance, a rule might refer to the pip-count of all of a koan’s red pieces, or even the pip-count of all red pieces that are touching the table and pointing at blue pieces. Note that when a koan contains no red pieces, the pip-count of red in that koan is zero. When employing the concepts of “odd” and “even”, don’t forget that zero is an even number!

Orientation (Upright/Flat/Weird): Each piece within a koan exists in one of three “orientations”: “upright”, “flat”, or “weird”. A piece is upright when it’s pointing straight upward, with its base parallel to the table, either on it or above it. A piece is flat when its lowest triangular side is parallel to the table, either on it or above it. A piece is “weird” if it’s neither upright nor flat. Note that these three orientations are mutually exclusive—a piece cannot be both flat and weird at the same time. Also note that a piece’s orientation has nothing to do with whether or not that piece is touching the playing surface—a piece which is lying nested inside another piece or lying across the tips of upright pieces is still flat. Finally, note that a group of pieces has the same “orientation” as long as they’re all upright, all flat, or all weird, even if they’re not all pointing in the same direction.

Grounded and Ungrounded: A piece is “grounded” if any part of it is touching the playing surface; otherwise it’s “ungrounded”. Note that this attribute is entirely independent of a piece’s “orientation”.

Direction: This term is used slightly differently than “orientation”; it refers to the direction that pieces are pointing relative to each other. Although absolute direction is not allowed, multiple pieces may be said to be pointing in the “same direction”, or “different directions”, or perhaps even “opposite directions”.

Pointing: Every piece has an imaginary “pointing ray” that shoots directly out of its tip and extends outward into space. The pointing ray will pass unhindered through any other piece; however, if the ray hits the table, the ray will bend to skim along the table’s surface. A piece is “pointing at” all of the pieces its pointing ray touches. A piece may be referred to as “the first piece being pointed at”, or “the second piece being pointed at”, and so on. A piece may “point through” one or more pieces at some other piece.

Touching: If two pieces are making physical contact in any way, they’re touching. Unlike pointing, if one piece is touching another piece, the other piece is always touching it back.

Tower/Stack: A tower or stack is any connected group of one or more pieces in which the tip of each piece is fully touching the underside of the tip of the piece above it. A tower may be upright, flat, or weird. Pieces are still said to be “above” other pieces in a tower, even if the tower is lying on its side. The pieces within a tower do not form sub-towers—a three-piece tower does not contain two two-piece towers within it. Single pieces are also referred to as towers. It follows that every piece in a koan belongs to exactly one tower.

Height: The physically highest point of a piece marks the vertical position of that piece within the koan. A piece may be higher than, lower than, or at the same height as any other piece in the koan. There will always be at least one highest piece and at least one lowest piece in a koan. It’s possible for the same pieces to be both the highest and the lowest in a koan.

Exactly/At Least: Avoid using indefinite statements like “contains a red piece”, or “contains two upright pieces”, because it’s not clear whether you mean exactly that number, or at least that number. Always use definite statements like “contains exactly one red piece”, or “contains at least two upright pieces”.

Majority/Plurality: When there are more red pieces in a koan than any other color, the koan contains a “plurality” of red pieces. When there are more red pieces in a koan than all the other colors put together, the koan contains a “majority” of red pieces. Many people use the word “majority” when they mean “plurality”. If players use either of these terms while you are the Master, ask for clarification.

How To Use These Definitions: The purpose of the Terminology list is twofold: to provide a way for players to conceptualize rules, and to provide a common language to aid the communication process between Masters and students. For the student, formulating and communicating a guess is one of the most difficult aspects of the game. For the Master, understanding and probing that guess is just as difficult. Standard terminology makes this process easier for both parties.

Some Masters worry that the adoption of this standard terminology will restrict their options when creating new rules, but it's important to understand that these definitions are not restrictive in any way. If you want to make a rule in which upright pieces do not point at pieces which are above them, you don't need to redefine pointing. Simply specify in your rule that only non-upright pointing pieces matter. If you want to make a rule in which pieces can't "point through" other pieces, simply specify in the rule that only the first piece being pointed at matters. If you want to use a totally new concept that isn't included in this list at all, feel free to do so. For instance, you're perfectly free to create a rule that involves the concept of "pointing with the corner of a piece", even though that style of pointing is not defined at all on this page. The definitions given here only define the most common concepts, which are used over and over again by many different rules.

Since these standard definitions are merely conventions, and since there are concepts like "pointing with a corner" that have no standard definitions, as the Master you must always make sure that you understand a student's terms. When a student guesses a rule, you are obliged to interpret that guess based on the student's terminology, not your own. Therefore, unless you already know that you and the student share a common language, you should always ask the student to clarify terms, even basic ones like "pointing". The students are free to ask you about your own terminology as well; you are not obliged to answer, but you are free to discuss standards of terminology that might make communication easier.

The Structure of a Rule: The easiest way to state any rule is to use one of the two following forms:

- A koan has the Buddha-nature if (and only if) X.
- A koan does not have the Buddha-nature if (and only if) X.

By convention, the phrase "and only if" is usually omitted. If a rule explicitly states that certain koans have the Buddha-nature, you may assume that the rest of the koans do not; if a rule explicitly states that certain koans do not have the Buddha-nature, you may assume that the rest of the koans do.

Some Problem Cases: Even if all of the players have agreed upon standard definitions and terminology, pitfalls and problems can arise. Consider the following:

- "A koan has the Buddha-nature if all of its red pieces are upright." What if a koan contains no red pieces?
- "A koan has the Buddha-nature if all of its pieces are pointing in the same direction." What if a koan only contains one piece?
- "A koan has the Buddha-nature if its largest piece is green." What if a koan contains more than one largest piece?

There are three basic approaches to these conundrums. I call the first the "natural language" approach. According to this approach, these statements all imply that the referent must exist in order for the koan to follow the rule. For instance, the rule "a koan has the Buddha-nature if all of its red pieces are upright" implies that there must be at least one red piece, so a koan with no red pieces at all would be marked black. The rule "a koan has the Buddha-nature if all of its pieces are pointing in the same direction" implies that there must be at least two pieces, so a koan with only one piece would be marked black. The rule "a koan has the Buddha-nature if its largest piece is green" implies that there must be exactly one largest piece, so a koan with two largest pieces would be marked black.

I call the second approach the "western logic" approach. According to this approach, these rules should be translated into unambiguous logical equivalents. For instance, the rule "a koan has the Buddha-nature if all of its red pieces are upright" can be translated into the rule "a koan does not have the Buddha-nature if it contains a non-upright red piece", so a koan with no red pieces at all would be marked white. The rule "a koan has the Buddha-nature if all of its pieces are pointing in the same direction" can be translated into "a koan does not have the Buddha-nature if it contains two pieces pointing in different directions", so a koan with only one piece would be marked white. The rule "a koan has the Buddha-nature if its largest piece is green" can be translated into "a koan has the Buddha-nature if it contains a piece such that there is no larger piece in the koan, it is the only such piece, and it is green", so a koan with two largest pieces would be marked black. (This is actually the same result that we saw in the natural language approach.)

I call the third approach the "mu" approach. It makes use of the Zen concept of "mu", which means something like "unask the question". According to this approach, if you point at a koan that contains no red pieces and ask "are all of these red pieces upright?", the answer is "mu"—unask the question! In other words, you've made an assumption that isn't valid in this situation. The "mu" approach recommends that, rather than translating phrases like "all the red pieces" or "the largest piece" into "natural language" terms or "western logical" terms, simply state your rule in the unambiguous "translated" form in the first place. If you what you mean is "a koan has

the Buddha-nature if it contains one or more red pieces and they're all upright", then say that! If what you mean is "a koan has the Buddha-nature if it contains no red pieces, or if it contains red pieces and they're all upright", then say that. This is the approach that I recommend—try to be as explicit and unambiguous as possible at all times. When other players use phrases like "all the red pieces" or "the largest piece", don't hesitate to ask for clarification.

Teaching Terminology: When you teach new players to play Zendo, do not immediately introduce them to the information contained in this chapter. That would only serve to overwhelm and confuse them. Simply begin playing, selecting rules that only utilize the simplest features like color and size. After you play a few games, you can begin talking about some of the basic terms listed above, since the players will then be prepared to digest them. In fact, after a few games, new players will begin asking about things like "pointing" and "stacking" without being prompted. The best time to discuss terminology is when this discussion arises naturally in the course of play.

Rules For Beginners: The following rules are suitable for beginning students.

A koan has the Buddha-nature if and only if...

- all its pieces are the same color.
- all its pieces are the same size.
- all its pieces are flat.
- it contains at least one red piece.
- it contains at least one small piece.
- it contains at least one piece of each of the four colors.
- it contains no green pieces.
- it contains no large pieces.
- it contains at least one medium yellow piece.
- it contains exactly two pieces.
- it contains two or more upright pieces.
- it contains a piece pointing at another piece.
- it contains an ungrounded piece.
- it contains at least one green piece and at least one blue piece.
- it contains at least two pieces that are touching each other.

ADVICE FOR MASTERS

When you are selected to be the Master for a game of Zendo, you take on a very different role than you would if you were playing as one of the students. You will not be trying to guess the secret rule; instead, you will create the secret rule that the others are trying to guess. You will spend much of your time during the game carefully marking the koans that the players build, and setting up counter-examples to their guesses. This may not sound

like much fun, but in fact, almost all of the Zendo players I know enjoy being the Master. The challenge of coming up with an interesting and clever new rule that's neither too easy nor too hard, and the fascination of watching a group of students try to solve it, can itself be viewed as a kind of game. In fact, I know a number of Zendo players who find being the Master more enjoyable than being a student (though I personally find them equally enjoyable).

When you're the Master, it's important for you to remember that you're not really a player; you're a facilitator. You're not in competition with the students; your main objective is simply to provide an enjoyable playing experience for everyone. There are a surprising number of pitfalls along the path to this goal; the aim of this chapter is to provide you with some tips on avoiding these pitfalls and becoming a true Zendo Master.

Creating a Rule: One of the most important choices that you must make when you are the Master occurs before the game even starts—the choice of what rule to use. The most common mistake that beginning Masters make is to create rules that are too difficult for the current group of students. Remember, your goal as Master is not to stump the students with a really tough rule—it's to provide them with an enjoyable experience. Most people don't enjoy trying to solve rules that are too difficult, and when you make a bad choice, they'll let you know about it.

Even experienced players will have a hard time estimating the difficulty level of a rule they've never tried before. The best rule-of-thumb is to remember that rules are usually more difficult than they sound. If you are trying to decide between a few different versions of a rule, go with the one that seems the simplest. It's much better to choose a rule that's too easy than one that's too difficult. An easy rule will still be fun, and the game will probably be over quickly, at which point you're ready to simply start another. In contrast, a rule that's too difficult will generate a long and frustrating game—a punishing experience for both Master and student. My advice is to start with rules that seem stupidly simple, and work your way up slowly until you find a level that everyone's comfortable with.

Remember that what counts as "too difficult" depends not only on the experience level of your current group of players, but also on what they're currently in the mood for. Don't be afraid to discuss rule difficulty with them before you choose a rule. Ask them what kind of rule they feel like playing; if they're in the mood for a tough one, they'll tell you. On the other hand, they may not want to know what difficulty you're choosing. They'll tell you that, too.

The second-most common mistake that new Masters make is to choose a rule that's ambiguous or ill specified. You should try to think about all of the possibilities before you actually start playing the game. If you make a rule like "a koan has the Buddha-nature if it contains a large piece stacked on top of a medium piece", you should decide beforehand whether or not a

large piece lying on its side with a medium piece inside it counts as a stack; it's dangerous to make this kind of decision "on the fly", in the middle of a game. You may sometimes be tempted to change a rule in the middle of a game, perhaps in the attempt to salvage a rule that's turning out to be too difficult. This is not a good idea. Not only does your new rule have to match everything on the table, but it also has to match everything that's ever been on the table at any point during the game. Unless you have a phenomenal memory, it will be difficult to guarantee that your new rule matches everything that's happened in the game so far. My advice is: understand your own rule completely before the game even starts, and never alter it once the game's in motion.

Of course, many rules do require you to make judgement calls during the course of the game, but those aren't judgement calls about the rule itself. These judgement calls are about individual koans, in which pieces are just barely pointing at other pieces, or just barely touching them, and so on.

Building the Initial Koans: After you come up with a rule, your next task is to build two initial koans—one that has the Buddha-nature according to your rule, and one that does not. How you choose to build these koans is up to you, and is largely a matter of personal style.

When you first play as Master, you may have the impulse to build large, complex initial koans, so that you will not "give too much away" before the game even starts. As you gain more experience playing Zendo, you will see that this is not necessary. It is impossible to give away any rule with only two koans, no matter how you choose to build them. Remember that your rule seems obvious to you, because you already know what it is. The students will need many more than two examples of koans in order to see the patterns that seem obvious to you. Building large initial koans only serves to make the beginning of the game tedious, as the students reduce the sizes of those initial koans to manageable levels. My own preference is to build initial koans that contain between one and four pieces.

Selecting the First Student: After you set up the initial koans, you must select a student to go first. It really doesn't matter who you select; there's no first-player advantage in Zendo. By the time it matters whose turn it is, you'll be deep into the mid-game.

Marking Koans: As the Master, your most important responsibility during the main portion of the game is simply to mark koans correctly. A single mis-marked koan will probably ruin the game, unless you catch it immediately. It's nearly impossible for students to mentally backtrack and undo the damage caused by faulty

information. The best thing you can do to avoid this is to be careful. Don't move too fast; think about every new koan the students make, and be sure you're marking it correctly. Use the "down time" while students are thinking to scan the table for possible mistakes. If you do find that you've made a mistake (and you will make a mistake eventually, if you play as Master often enough), be honest. Let all of the players know which koan you've mis-marked, and let them decide how they want to handle it. They may choose to keep playing with the corrected koan. In our group, we usually prefer simply to scrap the game and start a new one.

A different kind of mistake that the beginning Master often makes after a student builds a koan is to accidentally grab the marking stone before the student calls "master" or "mondo". This basically forces the student to call "master" (since everyone has now seen the answer). Therefore, train yourself to listen for "master" or "mondo" before you ever reach for the marking stones.

Yet another issue that arises during the marking of koans is that it's possible to "give away" certain facts about your rule by the way you study new koans. For instance, if your rule has something to do with "touching", the students may be able to glean this fact simply by watching you study the new koans they create. Therefore, I suggest that you study each new koan as if all of its features mattered, no matter what your rule is. If there's a piece on the far side of a koan, and you can't tell whether it's touching some other piece or not, stand up and take a look, regardless of whether your rule has anything to do with touching. If you make this your standard practice, people will not be able to glean anything in particular about your rule from your behavior. Of course, if this kind of behavior becomes too elaborate, it begins to seem like misdirection, which should not be your goal as Master. Your goal should not be to consciously misdirect the students; it should simply be to allow them to figure out the rule for themselves, without any overt clues from you. As with many of the issues in this chapter, how you approach this delicate issue is largely a matter of personal style.

Answering Questions about Koans: When you're deciding how to mark a koan, you may have to make a silent judgement call about whether one piece should be considered to be touching another piece, or pointing at another piece, and so on. Be careful not to indicate to the students that you're agonizing over a tough judgement call; they will most certainly be able to glean important facts about your rule if you do. The students should be responsible for noticing borderline cases, and asking about them if they feel that they may be important.

Because students are allowed to ask you about borderline cases, yet another issue arises: if you answer such a question without even looking at the koan, that tends to imply that your rule does have something to do with that feature (since you've

clearly already checked). However, if you look carefully before answering, that tends to imply that your rule doesn't have anything to do with that feature, since otherwise you would have already checked it in order to properly mark the koan. As always, use your own judgement about how to handle these kinds of issues. I personally always study a koan before answering questions about it, even when I already know the answers to the questions.

Finally, remember that you are only obligated to answer questions about the physical features of a koan; you are not obligated to answer questions about why a koan does or does not have the Buddha-nature.

Understanding a Student's Guess: The first thing that you must do when a student takes a guess is to understand the guess completely. You should not even begin to set up your counter-example until you are certain that you understand exactly what the student's guess is. You should understand the student's guess so well that you'd be able to Master a game of Zendo using that rule. Do not hesitate to ask the student clarifying questions if there's anything you don't understand. Ask the student to define any terms that haven't already been agreed upon as standard terminology. Look for and point out any ambiguity in the wording of the guess, and ask the student to clarify.

Many people fear that such open discussion will unfairly give away too much information to the student who's guessing; however, this fear is groundless. The students will not be able to glean any clues from your questions, because you must clarify ambiguities even when they have no bearing on the actual rule. Just as you must always answer a student's clarifying questions about the facts of a koan, you must always ask students about any ambiguities in their guesses, because it's simply not possible to provide a counter-example to a guess that you don't fully understand. In fact, it's in everyone's best interest to fully understand a guess; the other students are perfectly free to ask clarifying questions along with the Master.

Let's take a look at an example. Say that a student offers the following guess: "a koan has the Buddha-nature if the largest piece in it is red". This is an ambiguous guess, because it assumes that koans always have a single largest piece. It fails to specify how a koan with two or more largest pieces should be marked. In Zen parlance, the answer to such a guess is neither "yes" nor "no"; it's "mu": "unask the question". In such a situation, your only recourse as Master is to point out the ambiguity and ask the student: do you mean, "a koan has the Buddha-nature if all of the largest pieces are red", or "a koan has the Buddha-nature if any of the largest pieces are red"? Some people are bothered by the fact that you, as the Master, seem to be "helping" the student formulate a guess. However, it's important to understand that you haven't

given the student any extra clues about your own rule; all you've done is pointed out possibilities that were already inherent in the student's original guess. Your question does not imply that one of the two possibilities is correct; they could very well both be wrong. There's no reason not to allow the student to make this judgement call after being questioned. Indeed, the student is allowed to reconsider the guess and take the stone back at that point. A student has not officially taken a guess until an unambiguous rule has been stated and you have indicated that it's incorrect by providing a counter-example.

Responding to a Student's Guess: After the student has settled upon an unambiguous guess, your task is to provide a counter-example which shows why that guess is incorrect (assuming that it is). This is probably the most complicated task that you must undertake as Master; you must have a clear conception of both your own rule and the rule that the student has proposed, and you must figure out a specific way in which they are different.

Start by imagining different koans, and thinking about how the student's guess would mark them; then think about how your own rule would mark them, and find one that doesn't match. A common exchange tends to occur when Masters set up counter-examples:

Master: "According to your guess, this koan has the Buddha-nature, correct?"

Student: "Correct."

Master (marking the new koan with a black stone): "Well, in fact, it does NOT have the Buddha-nature."

Many new Masters forget the crucial fact that you can disprove a guess in two ways: by building a koan that has the Buddha-nature but the student's guess says does not, or by building a koan that does not have the Buddha-nature but the student's guess says does. For instance, if a student guesses that "a koan has the Buddha-nature if it contains at least one red piece", you can disprove this guess in two different ways: you can build a white koan that contains no red pieces, or you can build a black koan that contains red pieces. Either one of these possibilities will show the student that the guess is incorrect.

Of course, there are times when only one of these methods will be possible, and this fact often confuses new Masters. For instance, suppose your rule is "a koan has the Buddha-nature if it contains more red pieces than blue pieces", and a student guesses "a koan has the Buddha-nature if it contains red pieces". You cannot disprove the student's guess by building a white koan that contains no red pieces, because, under your rule, there are no such white koans. In a way, the student's guess is half-correct. However, you can disprove it by building a black koan that contains one red piece and one blue piece. This koan does not have the Buddha-nature according to your rule, because it does not contain more red pieces than blue pieces, but it would be white according to the student's guess, since it does contain a red piece.

There are a few common mistakes that you might make when setting up a counter-example. For instance, you may set up your counter-example and say “according to your rule, this has the Buddha-nature, correct?” and the student may say “no, my rule says that it doesn’t have the Buddha-nature, and here’s why...” Usually this indicates that some kind of miscommunication has occurred between you and the student; at other times, it’s simply an error on your part. (It’s conceivable the student could actually be trying to cheat by changing the guess in midstream, but I have never seen this happen, and I don’t believe an entire group of players could be fooled by it. But this is yet another reason why it’s important to make certain that you—and the entire group of students—understands exactly what the guess is before you set up your counter-example. If you ever suspect a student of cheating in this way, you always have the prerogative as Master to take the student’s stone and let your counter-example stand.)

A similar mistake occurs when you set up a koan that’s (say) white according to the student’s guess, and then you realize that it’s actually white according to your rule, too. Oops! While mistakes like these will probably not ruin a game, they do provide an unfair advantage to the student who’s guessing, because they provide an extra and potentially important piece of information that the student was not supposed to have. If that student has another stone, this new information may prompt him or her to take another guess and win the game. Misunderstandings and mistakes are impossible to eliminate completely, but expect grumbling from the other students when they occur.

There are many different ways to word any rule, and sometimes it’s difficult to sort out whether or not a student’s guess is identical to your rule. Zendo has been designed so that you will never accidentally declare a player’s guess to be incorrect when it is in fact correct (because the only way to declare a guess incorrect is to provide a counter-example). However, it is possible to accidentally declare a guess correct, when in fact it’s actually incorrect. When this happens, someone usually notices after the fact that the two rules are actually different, and a counter-example could have been constructed. Obviously, it’s impossible to recover from such a mistake, since you’ve already told everyone your rule. You may take a small consolation in the fact that, since the two rules were so similar, the game was probably about to end anyway. Nevertheless, you should be on your guard against this common mistake, as it does more or less invalidate the game, even when it’s obvious who “would have won”.

Helpful Masters and Tight-Lipped Masters: One of the things to keep in mind when you set up a counter-example is that you have a fair amount of control over how much information your new koan provides. This is an area in which your responsibilities as Master are very open to personal interpretation and style. On one extreme, you may choose to set up helpful counter-examples that lead the students away from error and toward the correct answer. On the other extreme, you may take the tight-lipped approach, building counter-examples which give away as little as possible, and perhaps even mislead the students, or reinforce “superstitions” that they’ve developed.

For instance, let’s say that a student guesses “a koan has the Buddha-nature if it contains a red piece pointing at a green piece”, when in fact your rule has nothing to do with red pieces, green pieces, or pointing. You could choose to build a very

helpful counter-example, by (say) setting up a white koan consisting of a single yellow piece, which will strongly indicate to the student that the rule has nothing to do with any of those things. Alternatively, you can take the tight-lipped approach, and build a complex black koan containing many pieces, including a red piece pointing at a green piece. This doesn’t tell the students much at all, and may leave many of their “superstitions” about color and pointing intact.

The important point here is that you are under no obligation to be helpful or tight-lipped as a Master—this is a matter of personal style. The only official requirement is that you set up a new koan that definitively disproves the student’s guess. However, I do strongly recommend that you be consistent. Over the course of a single game, choose a style and stick with it. Being helpful gives a slight advantage to the student who’s guessing, because that student has the first chance to guess again using the new information. This is perfectly fair, as long as you’re consistently helpful after all guesses. However, if you’re helpful sometimes, and tight-lipped at other times, you’ll be providing an unfair advantage to the students who are lucky enough to get the helpful counter-examples. Of course, even when you’ve chosen to be tight-lipped, a particularly incisive guess may force you to build a very helpful counter-example. In that case, the guessing student deserves the resulting advantage.

Giving Hints, and Giving Up: There is one situation in which it may be acceptable to switch from “tight-lipped” to “helpful” in the middle of a game—when it’s starting to look like the rule you’ve chosen is too difficult, and the students are clearly ready for some hints. The least intrusive way to give the students hints is to build helpful counter-examples. You’ll notice that, as students continue to struggle with a rule that’s too difficult, they’ll gradually begin working together, until the game becomes a kind of group effort, with people giving each other suggestions and telling each other their theories. In such a situation, people are unlikely to be bothered if you “unfairly” switch into “helpful” mode.

In fact, at some point, the students may, individually or collectively, begin asking for hints. This is a delicate situation, as not all students may desire hints. As always, you must use your best judgement to assess the situation, and decide whether or not to offer a hint, and what kind of hint to offer.

At some point, students will simply not want to continue playing, and at that point they’ll have to decide when it’s time to give up and have you tell them your rule. Once again, be sensitive to how all the players feel; one or more players may prefer to continue to try to figure it out for themselves, even if the others quit. Do the best you can to make all players feel good about the outcome.

Yes, Tell: If your players do give up, you might be tempted not to tell them what the rule was, perhaps planning to save it for another occasion. In my opinion, this is unacceptable. For the students, giving up is the least satisfying way to end a game of Zendo, and it almost always indicates that you’ve made a mistake—you’ve chosen a rule that’s too difficult. Struggling through a too-difficult rule can be a punishing experience for the students; don’t make it worse by refusing to provide them with the closure of knowing the rule they worked so hard on! Tell them what your rule was. Consider that your penance.

Looney Pyramids were created by Andrew Looney in 1987. If your friendly local game store doesn’t sell them, please visit: store.LooneyLabs.com

