The Five Step Teacher

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My motto as a young flight instructor was, If you can put it in the seat, I can teach it to fly. Despite that youthful naiveté, my students did well, mainly because I didn't interfere with their natural ability to learn. Over time, my teaching strategy evolved into something a bit more sophisticated. Now I use a five-step teaching process whenever introducing a student to a new skill or idea. Let me describe it for you, step-by-step.

When Pope Julius II decided on a room upgrade for his Sistine Chapel, my guess is that he introduced Michelangelo to the massive project by saying, "Mikey, let's talk about the big picture… of all the little pictures I want you to paint (the Pope points) up there." This was a wise strategy, because 80% of us pick up new subjects quicker when someone lays out just what it is that we're about to learn—the big picture—followed by all the tiny details and specifics. Not doing so is like giving someone a thousand-piece jigsaw puzzle and insisting they assemble the picture without telling them what the picture is. What fun is that?

That's why it's wise to begin every lesson by (Step-1) *describing the big picture to your student*. If your lesson is on slow flight, then explain the value in learning to fly a fast airplane in slow-mo. This is a skill that students need to land an airplane, right? If your lesson is on steep turns, then explain to them how this maneuver helps them understand how an airplane's stall speed can rise up to reach them at their present speed instead of the airplane having to slow down to reach the stalling speed. If you're teaching a course on weather, describe how uneven heat distribution is responsible for nearly every aspect of weather in our atmosphere. Now *that's* thinking big.

Perhaps Gary Zukav explained the idea of the big picture best in his book *The Dancing Wu Li Masters* when he wrote, "The master….begins from the center and not from the fringe. He imparts an understanding of the basic principles of the art before going on to the meticulous details....The master does not speak of gravity until the student stands in wonder at the flower petal falling to the ground."

Once you've displayed the big picture, it's time to talk directly to the "doing" portion of your student's brain. That means (Step-2) *defining in behavioral terms the motor, perceptual or cognitive skills you wish to teach*. Telling your student that he needs to use "more" right rudder when entering a right turn is asking him to measure without a ruler. More than what? How much more? You're better off defining your objectives in

behavioral terms such as, "To enter a right turn, press the ball of your right foot on the bottom of the right rudder pedal sufficiently to keep the nose from yawing to the left during the turn entry." Now you've given him a ruler. He understands the behavior you want, because you've spoken directly to his noodle action center.

Defining objectives behaviorally is useful, but only if you have behaviors to describe. Your job is to provide the experience leading to the development of new behaviors. Unfortunately, some experiences are hard to come by and must be artificially created. That's why instructors reduce power to flight idle and say, "Your engine has failed." Of course, some students counter with, "No it didn't…look…someone just pulled back the throttle." They don't get that you're trying to simulate experience when the real thing isn't available.

Good instructors devise unique ways to (Step-3) *simulate experiences that can't be had directly*. For example, if you want your student to see what an aerodynamic slug an airplane becomes when loaded with ice, you might say, "Starting now, I'll reduce the RPM by 100 for every passing minute to simulate a high rate of ice accretion on the wings while you find a place to land." That's simulating an experience that can't be had directly. If, after five minutes of your shenanigans the student shoves the throttle in, you'll know that he just discovered how to simulate de-icing boots.

Unfortunately, there's often a big difference between how we teach a maneuver and what we really do ourselves. For instance, you might teach your students to look at the runway directly over the nose during the landing flare. That's fine until the nose comes up and the runway disappears. If you were to share the strategy you really use when flaring an airplane, you'd probably say, "Look at the runway and the horizon over the nose until the nose obstructs your view of the runway, then shift your vision to the left slightly to keep the runway in sight." This is why you always want to (Step-4) *identify the clues you actually use to perform a behavior and share these with your student*. Don't keep the good stuff a secret.

Finally, it's important to remember that even if your students dress up like stoic Vulcans and make regular appearances at Star Trek conventions, they're still human (unless those pointy ears are real). That means they have feelings that you must respect. Doing that means you'll always try to (Step-5) *critique your students' performances but not the students themselves*. The best way to do this is to avoid using the word "you" in your critique, speaking only to the behavior in need of improvement.

For instance, assume that a strong crosswind keeps blowing your students across the International Date Line while flying the traffic pattern's downwind leg. You could say, "Bob, it's as if your brain has become disconnected from its plug. You need to man-up by making less wimpy crosswind corrections today, not tomorrow." Instead of inspiring

better behaviors, you've summoned your student's most powerful defense mechanisms. Critiquing the performance and not the student means saying something such as, "To maintain a parallel track with the runway under these wind conditions requires twice the wind correction previously used." That should make him happy and you happy...today.

While you have enough to think about when training your students, having a pocket-ready, five-step strategy for introducing new subjects is sure to make your job a bit easier.