



Phrase Check

Seven tips for groundwork success

BY SHANNON SHEPPARD

Working with a student one-on-one can be difficult. You may spend 30 minutes or more explaining a complex concept in a groundwork session, and your student seems to comprehend the topic: He is listening intently, taking notes, nodding in understanding, and even asking you a question or two. When you ask, he says he understands and doesn't have any questions, so you move on.

Yet, at the end of his training, your student fails the oral portion of his checkride. What happened? He understood the information you explained in groundwork—so did he forget?

For many learners, receiving information is easy. Their learning even appears passive, as they sit quietly absorbing everything you say. In fact, your student probably truly believes that he understands the material. However, the ability to reproduce information in one's own words is much more challenging. Some students have difficulty understanding the concept in detail or depth, and others may not be sure how to explain the topic to someone else.

Flight instructors play a vital role in helping students develop aviation communication skills—beyond using the radio. Being able to clearly communicate aviation knowledge in an oral check

is an important skill for all pilots, and the ability to learn, process, and explain material in one's own words is the true demonstration of understanding.

To make sure that your student understands key concepts, here are a few strategies you may find helpful in your next groundwork session.

1. 30/70 rule. For your next session, think about how you allocate time. That is, how much time are *you* talking? Does your student have a chance to describe the information to you?

One method for engaging your students is to use the "30/70 rule." Using this method, you talk 30 percent of the time and allow your student to talk for the remaining 70 percent.

If you've planned ahead and assigned homework, your student should have a basic understanding of the day's subject. After your initial summary, ask your student open-ended questions, where he'll have to explain the topic for a longer period of time. This gives him an opportunity to describe the topic as he understands it. You can evaluate his explanation, give him advice where needed, and build his confidence in the subject at the same time. Remember, your student needs to practice explaining the topic, you don't.

2. Examiner questions. When you introduce new concepts, your student

needs time to accept, process, and then reproduce the idea in his own words. To encourage this development, have students generate "examiner questions." Once you've finished with a more challenging subject—let's say precession—ask your student to generate an oral-exam question. Then, have your student answer his own question by providing an everyday example of precession. Students are more likely to remember the concept if they've had an opportunity to use the information from the examiner's perspective.

3. Note cards. Some students are able to study successfully from the new computer-based programs that are widely used today, but others still need tactile objects to reference. In your next groundwork session, bring a stack of note cards with you. Have each topic you will discuss written on one side of the card. While you're describing each concept, have your student take notes on the back of the card. When you're finished with your briefing, check your student's notes. You can identify any misinterpretations immediately and reinforce the correct information. Now your student will have these cards to take home for self-study.

For your next session, ask your student to bring the cards with him. Review the previous material by having your student look at the title side of his cards and describe the im-

portant points he listed on the back. Not only are you helping your student study, but you're also providing an additional opportunity for your student to explain the information.

4. Teach-back. You've heard of a read-back before, so why not try the "teach-back." Give your student a topic to research, study, and then present to you. Make sure that you provide him with the best resources for finding the information. If you want your student to become familiar with visual flight rules weather minimums, make sure he knows where to find the information in the *Aeronautical Information Manual* or *Federal Aviation Regulations*.

When you arrive for your next lesson, your student should be ready to teach the topic to you. Have him explain it, provide examples, and answer your questions. Ultimately, this is exactly what your student will be doing in an oral exam.

5. One-minute challenge. Before you begin a session, ask your student to write everything he knows about a specific topic. Let's take hyperventilation as an example; give your student a piece of paper and the topic, and then time him for one minute. He should write everything he remembers or already knows about hyperventilation on the paper.

Now that you can see what he already knows about the topic, your groundwork session can be more specific and productive. Use the time to fill in missing information, help organize your student's notes, and challenge him to answer your questions.

At the end of the groundwork, give him the one-minute challenge again. He should be able to create a longer list of details about the topic. You can also determine where he may still have a few questions that you can revisit and reinforce.

6. Engage, study, activate. Created by Jeremy Harmer, this method of instruction focuses on student motivation. Harmer contends that every lesson should have three elements: engage, study, activate. Many students come to aviation with a passion for learning how to fly, but few students realize the extent of content knowledge they will have to learn in order to fly.

The first challenge for instructors is engaging students with the material. By doing so, you'll make the session more interesting for you and your student. Begin with a stimulating picture, aviation article, real-life scenario, or personal story. Your student is more likely to want to learn about thunderstorms if you tell him about the time you had to circle over a lake until a thunderstorm moved away from the airport.

Once your student is engaged, you can guide him through the study phase. In this portion of the groundwork, focus on teaching the material. Identify the resources he can use to reference the information, focus on teaching the key points, and provide examples to support the information.

Now that your student has the knowledge, it's time to activate that knowledge and put it to use. In this phase, your student should practice what you've taught. He needs to be challenged in new ways to use the information you've provided. Create a flight scenario, provide a weather report for analysis, or use FAA written questions to activate his new knowledge. As the FAA/Industry Training Standards describe, training should focus on a learner-centered approach. Provide your student with the opportunity to act as a certificated pilot both in the air and during the ground briefings.

7. Departure ticket. Even with the groundwork strategies described here, some students may still be

reluctant to ask you questions or express their difficulty in understanding the material. Instead of asking the standard, "What questions do you have?" have your student ask questions indirectly.

At the end of your groundwork session, give your student a "departure ticket" home by having him write at least three questions on a piece of paper. He can ask you about anything related to the topic, but he can't leave until he gives you his ticket. Walk away from the table while he jots his notes; most students don't feel comfortable writing in front of their instructors.

Once he gives you his ticket, explain that you'll talk about his questions in your next lesson. Now you have time to prepare your answers, and your student feels less intimidated by having asked for clarification. When that time comes, start by addressing those questions. Your student will feel more comfortable, and he'll probably be more likely to ask you questions directly during your next groundwork session.

Most students prefer air work to groundwork—and who can blame them? Most pilots would rather be in the sky than in a classroom, but as its name signifies, groundwork lays the foundation for your student's aviation knowledge. Groundwork offers time for your student to verbalize what he has learned. In the aircraft, he can show you what he understands, but on the ground, he needs to be challenged to apply his aviation knowledge and demonstrate his communication skills. With guided practice throughout his training, your student will have greater success in his next oral exam.

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