

Section A

INSTRUCTING

“Nails require hammers, airplanes require crews, and *training requires instructors.*” (USAF publication)

Military and Civil Air Patrol Instructors are looked upon as professionals in the areas in which they are teaching others. It is imperative that the instructor looks, behaves, and performs the part with pride and military decorum. Trainees will quickly lose respect for anyone less and ultimately learn little to nothing. The following are methods of maintaining a professional appearance and proper training atmosphere.

Before You Begin Instructing

All new members MUST have completed the initial application form and any applicable background checks.

Before formal instruction begins, you should start by going over rules of the classroom, expectations, schedule, and any house keeping items.

- Classroom Rules – Review your rules as the instructor with the new members. Examples may be that there is no gum chewing allowed, students must raise their hands to be recognized, etc.
- Expectations – As an instructor, you should expect that new members come in with an attitude to learn which includes having an open mind to new and old subjects regardless of their prior experience.
- Schedule – Review the schedule for course completion with the students.
- House Keeping – Inform the students of bathroom location, breaks for meals, etc.

The Learning Process

True learning is not simply a function of memorizing information. True learning is gaining knowledge through experience. It is a multi-sensory discovery process. The more Senses you involve in the learning process, the more the lesson is comprehended.

WHEN I HEAR ---I FORGET
 WHEN I SEE -----I REMEMBER
 WHEN I DO -----I LEARN!

Similarly, children play to learn. Playing is a powerful way for children to gain experience because so many of their Senses are involved and because it is FUN!

See - - - Touch - - - Listen - - - Learn

Steps in the Teaching Process

There are four basic steps that are part of the teaching process: Preparation, Presentation, Application, and Testing. We will explore each briefly.

Preparation

Preparation must precede instruction. When you are charged with teaching a lesson in a Civil Air Patrol training program, it must be assumed that you have the basic skill and knowledge required to conduct the instruction, or that you will make it your business to secure such skill and knowledge. That's the first step. Secondly, it is imperative that you plan in detail not only what you are going to do and say but also what you are going to expect and require of you students. Thirdly, it is you responsibility to make certain that you have the necessary supplies, materials, and equipment readily available and that you will arrive to conduct instruction in sufficient time to see to it that any equipment is in working order before your students arrive. During the

preparation period that precedes instruction, you will usually find it desirable to write on the white board. If available, write three or four main objectives of the lesson or the few principal items to receive consideration during the instructional period. It may also be appropriate for you to place your name on the white board before your students arrive so that they will be able to address you properly.

Students should be prepared. In a well planned instructional program, it is usually good practice to give students periodic study assignments between each class session so that they will be as ready as possible to receive the instruction of each class period.

Presentation

In the presentation step of the teaching process, you present new materials, demonstrate new process or skills, and explain procedures, while the students make initial contact with new learning, “see” new ideas, and develop new mental pictures.

In the presentation step, you may choose from a number of commonly used methods of teaching. The demonstration method is one of the most desirable for presenting a skill to beginning students. In teaching a bit of related information you may choose to use the lecture method with suitable illustrations. You may find it desirable to bring a large group of students together to listen to short talk in which you present general information of a background nature. Your choice of methods will be determined in part by the nature of the subject matter and your objective in teaching it. If you aim too high and include too much in a single lesson, your students are likely to become confused, so it is best in most cases to present new material in short “doses.” Your choice of method may depend also on the ability of the students. Some students will require less explanation than others because of their exceptional ability. Also, lack of equipment may prevent you from using the method which would be best under more favorable circumstances.

At the same time, you need to consider several other aspects of the presentation of the new material. For one thing, you want to be sure to tell the facts or demonstrate the steps of the lesson, in proper order. In teaching the use of communications equipment, you shouldn't show the students how to program repeater tones before you teach them where the on switch is. Further, do not drift into casual remarks unrelated to the step you are demonstrating. The complete attention of the students should be centered on the process they are watching. They should get a clear-cut picture of each separate part of the process, or of each division of the material. Careless thinking on your part is bound to be copied by your students.

Finally, you must emphasize the most important points by repeating them, by explaining why they are important, by using striking examples of their importance. For example, an instructor in aircrew training would emphasize that touching a propeller in any situation, but especially when the pilot is performing preflight check could result in injury or death.

In the course of the *presentation step* of the teaching process, you may need to drop back into step one (preparation) to increase or renew the interest of your students in the lesson. It is highly probable that you will find it advantageous to conclude the *presentation step* with a summary. Don't try to follow the steps in the teaching process blindly in an established sequence. Use your judgment.

Application

In the application step of the teaching process, you give the students a chance to apply what you have presented to them. You help the students avoid incorrect procedures and improper habits while trying out the new skills they have learned; you see to it that, from the start, they do it right. You make sure that they understand clearly what they are doing. In all this, however, help the students only when necessary. Let them stand on their own feet as much as possible.

After you have aroused your student's interest and have shown them how to do something, they will want a chance to try it for themselves. Their efforts to use the knowledge and skill you have just helped them acquire is called the application step of the lesson. You may ask a student to explain the new material or do it themselves. Nevertheless, you still direct their activity, correct any mistakes, and explain as much as may be

required. It is very important that each student perform an operation the right way the first few times, for that is when habits are started, and a bad habit is hard to correct. Operations which require skill should be done over and over again until they can be performed almost automatically.

Although it is absolutely essential that the student actually do something with this new knowledge, you can sometimes combine the application with your demonstration. For example, in teaching a fairly long and intricate process, you can do the difficult steps while the student does the simple steps. After they have mastered the easy parts, they can begin to do the others also.

You may be surprised to discover occasionally that you students simply cannot apply what you have just presented to them. In such a situation, you must immediately stop them in their work and demonstrate or present the material again. Give them a chance to ask questions, and talk over their difficulties before starting them on the step again. Sometimes you will have to retrace your steps, particularly if interest lags. Ordinarily, neither you nor the students should be censured for such a variation. A typical lesson might go through the first two steps, then back for more preparation, on to application, back to presentation, more application by the student, and finally testing. An alert instructor can sense from the attitude of their students whether or not they are ready to go on to the next step.

Testing

In the testing step of the teaching process, you assure yourself that you have taught because students have learned; you evaluate individual performances; you determine what materials, if any, require re-teaching; at the same time, the students demonstrate what they have learned and how well they have learned it; they apply their new skills to real problems.

When you are reasonably sure that your students understand the lesson, you can help them clinch their knowledge by testing it. In a test, they apply the knowledge or perform the operation without any help from you. You remember that in the application step the students' work was constantly under your direction, they could ask questions, and their errors were prevented if possible. In a test, they work on their own responsibility, so that you can find out exactly how much they know and what weak points need to be stressed in additional training.

You will have your choice of many kinds of tests. You may ask questions in oral or written form, or you may ask your students to do a complete job on which they will be rated according to established standards.

As a result of the test, you are able to keep your students posted as to their success and their deficiencies. You inform each individual concerning their progress in training, and you plan and conduct re-teaching in accordance with the results of the tests.

You should not allow your class to leave any lesson without an adequate summary and whatever assignment may be called for by your approved lesson plan.

Additional Steps

In addition to the four basic steps, it is wise for the instructor to carry out two more steps as part of a typical lesson plan, summary and assignments.

The instructor should summarize important points. Be certain that students understand the relative importance of their instructional materials

Second, prepare and give assignments to further mold the students' minds while out of the classroom. Let students in on the planning; here's where we are now; here's where we go during the next class session; for home study you are to ___. Make definite assignments, either practical applications or prerequisites study on new material.

Methods of Instruction

There are many methods and books on instructing. This is because not all instruction techniques communicate clearly with all audiences. Experienced instructors learn over time how to judge their audience and change the technique they are using while engaged in a class session. This comes with experience and experience only comes one way...by doing it. In this publication we will address three methods applicable to teaching new Civil Air Patrol members learning from SERP 50-1, *The Auxiliaries Handbook*.

The Lecture Method

When a stone age father taught his caveman son to provide himself with the necessities of life, he probably used few words. But the learning required of the caveman was relatively simple. There was no strict time limitation on the teaching or the learning process. And the stone age father was not required to train a large number of individuals at one time. If there had been several thousand cavemen to be trained in thirty instructional days of six hours each, the caveman would surely have realized his need for a language.

Don't get a lecture wrong. In this publication, the word lecture does not mean a lengthy, unintelligible discourse by a bearded professor, rather is considered in its broad sense as an "telling" activity or oral expression. Such a lecture may include class discussions and answers to questions and may be accompanied by the use of suitable training aids and/or training literature. In most Civil Air Patrol training programs, a lecture is less formal and planned to permit questions from the audience at frequent intervals.

Lectures have many advantages. They are:

- Adaptable
- can be used in most facilities
- can be presented in a short time
- a broad scope of information can be covered in a single lecture

For a lecture to be effective it must be needed, organized, short, have "key points", pleasing, and supplemented with training aids such as mock-ups, posters, charts, or illustrations. No one appreciates a lecture unless they feel that they will benefit by listening to it. An old time preacher observed that "there are no souls saved after the first thirty minutes." A lecture becomes too long when the speaker loses the attention of their audience. Two short lectures are more effective than one long one.

- *Preparation Step* – Use a story, a question, a picture, a performance – anything you can say or do to focus the attention of the class on the business at hand. Tell what the lecture is going to be about and why it is important to your students.
- *Presentation Step* – Say it. Here is the information itself, the key points you want to make and put them in logical sequence.
- *Application Step* – Tie it down. Here are examples from experience to bring understanding into focus. This step does not have to wait for completion of the presentation. Weave in examples where they will do the most good.
- *Testing Step* – Some pertinent questions by way of check-up. Why, Joe...How, Mike?...What, Hank?
- *Summary* – Be sure of these key points. The conclusions, the crux of the situation stated as simply as possible, at strategic intervals and in conclusion.
- *Assignment* – Some specific task assigned for home study to help students understand or fix subject matter in their minds and help you put over the next lesson.

The Demonstration Method

There is no demarcation point between *demonstration* and *lecture*. This means that in-so-far as demonstration includes telling, the preceding information on the lecture method applies equally well to the demonstration method. Review material on the lecture while considering the demonstration method.

What is demonstration? Instruction which combines *showing and telling is demonstration*. A demonstration is instruction designed to appeal to the sense of sight as well as the sense of *hearing*.

Demonstrations have many advantages. They give meaning to facts. For example, words can present the facts about the effects of altitude on the human body, but these facts have much more meaning if they can be demonstrated in a pressure chamber.

Demonstrations help the students understand. With suitable equipment, for example, it's easy to show a large group of students how a gyroscope works. Probably no amount of telling could provide the same amount of understanding.

Additionally, demonstration also save instructional time, can usually be presented to large groups, provide contact with actual objects and procedures, appeal to several senses, and has dramatic appeal.

- *Preparation Step* – Use the best demonstration techniques. Be prepared. Nothing falls as flat as a demonstration that doesn't work. Before undertaking a demonstration with a class, be sure you can carry it through.

Start with using the lecture method to prepare students for a demonstration.
 - Explain the purpose.
 - Tell your class what to look for during the demonstration.
 - Show the relationships between what you are doing and what they already know or will be required to do.
 - Make sure that the students are arranged so that they can all see.
- *Presentation Step* – Your presentation step must be excellent. Include a careful explanation of what you are doing, what happens when you do it, and why you are doing it that way. Take it easy. If the demonstration is justified at all, students must learn from it. Remember – the hand is quicker than the eye. You are not giving a sleight of hand performance. Make sure each student understands the essential facts. It may be effective to go through the entire demonstration as a complete process, then repeat it slowly, directing attention to details.
- *Application Step* – During demonstration, part of the application comes while you are doing. Your students should understand the relationship between what you are doing and what they will be required to do. Part of the demonstration may be performed by students. It is effective teaching to utilize one or more students in performing the demonstration.
- *Testing Step* – If your demonstration was effective, your students can do something now that they couldn't do before. Ask if there are any questions. Questions asked by your students may indicate where you have failed. Both questions and lack of questions may reveal student strength and weaknesses.
- *Summary* – There must be a few key points for your students to remember. That same advice – Tell them what you're going to say, say it, then tell them what you said – applies to a demonstration.

Performance Method

When a weaver of feudal times taught his son to carry on his trade, he used the performance method. Nevertheless, he still used words. Undoubtedly, the father talked with his son as the boy watched the operation of the loom. The father must have impressed on his son that weaving is an honorable trade. He may have explained the use of colors to secure certain effects and pointed out ways of determining the value of his product. It seems probable that the father passed on to his son certain trade secrets by which a superior product could be made and told him how to dispose of the product to advantage.

Of course, this weaver of olden days did not prepare and deliver a formal lecture to his son. Still, verbal instructions were an integral part of the training – *lecture* as a part of the performance method.

As the son watched the operation of the loom, he observed the procedures of an expert in his trade. He could see the job done be a skilled performance – *demonstration* as a part of the performance method.

But, and this is most important, the weaver's son did not acquire skill in doing the job until he actually practiced operating the loom.

Skills can be acquired only by doing. Since Civil Air Patrol missions requires highly skilled personnel in hundreds of different jobs, most Civil Air Patrol training programs are intended primarily to develop personnel with certain desired skills. Therefore, Civil Air Patrol training programs are designed to assist students in developing skills of particular jobs by actually doing them – they *performance method* of instruction.

The performance method is learning by doing!

- *Preparation Step* – You must prepare to demonstrate each lesson with accuracy and precision. You must get the students in a state of readiness to learn.
- *Presentation Step* – You must show the students clearly what they are to do – that is, *demonstrate* to the students the procedures to be followed.
- *Application Step* – In this step, you become the supervisor. Under your close guidance, the learners apply the process or knowledge which you presented to them for the purpose of developing the skill or solving the problem.
- *Testing Step* – In this step, you become the inspector. After the transformation, you have different interest – a different perspective. Your students are different too, now they are on their own.