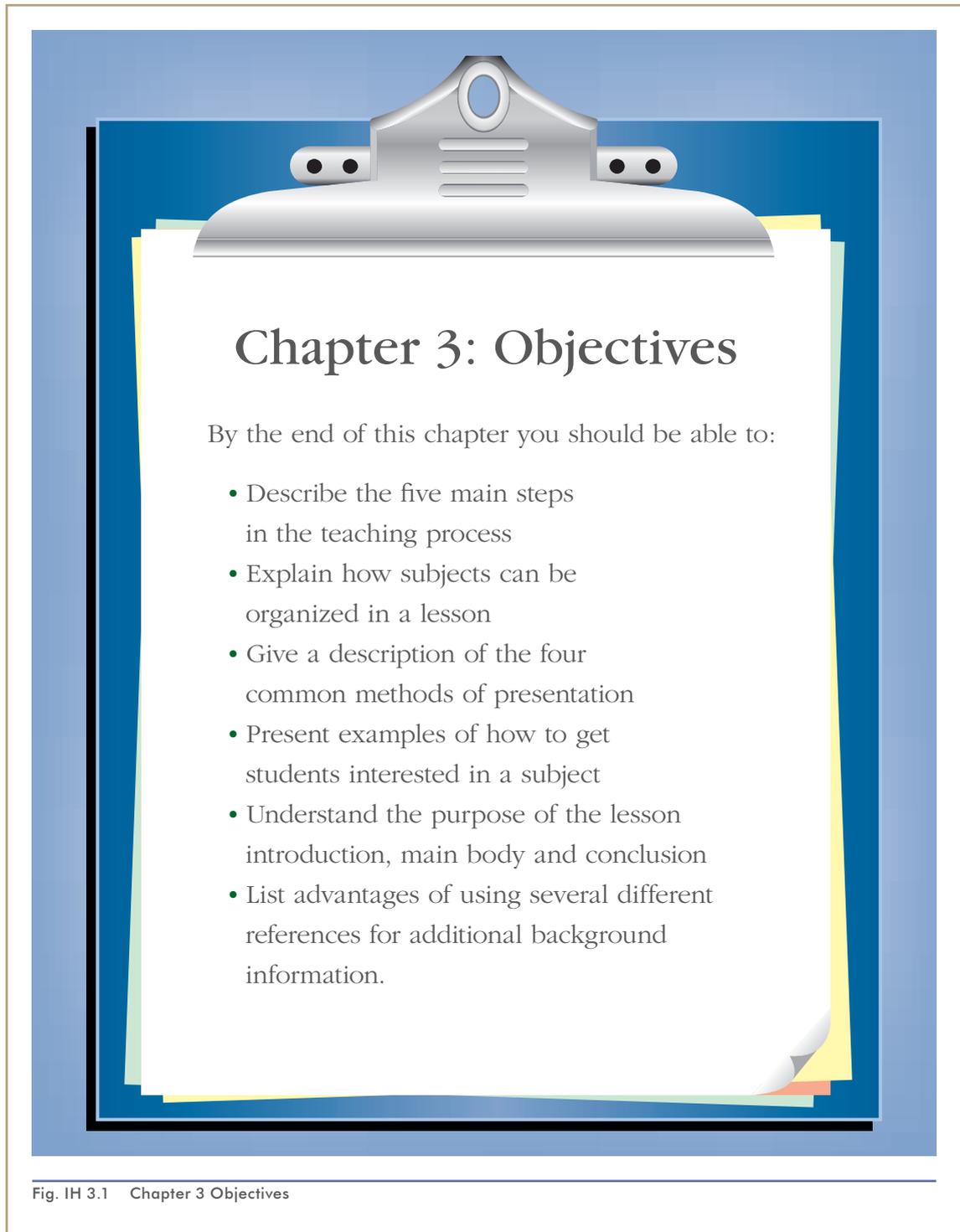


Teaching



I once read: 'He who can, does. - He who cannot, teaches' (G. B. Shaw, 1903). Denis Arbeau, who trained me to become an instructor for the world's largest B-747 operator, had a different opinion. Denis Arbeau used to say: 'The best ball players don't always become the best coaches. True in some cases, but not in aviation. You should never ask a student to do something you can't do yourself.' Over the years, I have realized how true this is because a skilled aviation instructor needs to know both how to do it and how to teach it. The instructor must know the material in the classroom, in the air and in the simulator. Knowledge alone is not enough, the instructor

must also know how to pass this knowledge on to the students. The previous chapter talked about learning - the reception of knowledge. This chapter deals with teaching - the transmission of knowledge. Teaching is simply to cause someone to learn. You must have had many different teachers in your life. If you think back you will remember how they were, some probably bored you to death, others thought that yelling would make you learn better and some did not even know your name. Hopefully, some teachers made you feel clever, motivated and successful. If you were lucky, most of your teachers made you feel successful.



Teaching adults

If you think back to school again, you will probably also remember how your teachers' styles changed as you got older. Teaching an adult is different from teaching a seven-year-old child. Adult teaching needs to be done quite differently from the way we teach children because adults are students by their own choice. They want to learn, like to be treated as equals and need to be involved. We must keep these factors in mind when we plan how to conduct effective adult teaching.

Elements of effective teaching

Think about how different some of your teachers were. Most of them probably knew their material and the individual differences were not in *what* they said, but *how* they said it. Teaching consists of more than just dishing out information. Effective teaching depends on how it is presented and this is an important part of the *teaching process*. The teaching process must be organized and planned in order to be effective. We can divide this process into five main steps:

- Identification of aims and objectives
- Preparation
- Presentation
- Application
- Evaluation.

3.1 Aims and objectives

Teaching without a purpose and goal would waste the student's time and money. We have discussed the building block system

and stressed the importance of learning the basics before proceeding to more advanced tasks. Almost all aviation-training courses are based on government requirements. The requirement may be just a short list or a more detailed *syllabus*. A syllabus is a listing of what a course should include. The syllabus contains a summary of subjects and essential elements that the training should cover. In some cases the training organization must develop their own syllabus in order to obtain approval to offer training. A syllabus is often written as a listing of what the course should cover and not as a listing of what the students should be able to do. An instructor must have a clear idea of how well his or her students should know each topic and task. These goals are often specified as aims or learning objectives. Each lesson should have an *aim* and an *objective*. Even experienced educators can be confused when we talk about aims and objectives. Typically an aim is a statement of intent and an objective is a statement about what the student should be able to do after the training.

An example might be:

- **Aim:** To learn to fly at constant altitude
- **Objective:** Be able to maintain constant altitude within +/- 100 feet.

The authorities have developed aims for all training requirements. Detailed objectives have not yet been developed for every course. A typical example of this is CRM training where there are no test standards or objectives. Individual training organisations are often designing their own objectives; such as *behavioral markers* which lists objectives

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for CRM skills. We will discuss training development, objectives and syllabi in chapter four. Another important tool is the *lesson plan* describing the organization of your lesson. The lesson plan is an organized outline of a single instruction period.

3.2 Preparation

Before each lesson or instructional period you must organise your thoughts and prepare your teaching. How much time should you spend on preparation? It will vary from just a quick review to several hours depending on how well you know the students and the subject. You will need more time to prepare for a new classroom topic and just a few minutes to get ready for a lesson that you teach every week.

A lesson plan serves as a roadmap for the lesson, starting with the introduction, followed by the main body and finally ending with a summary or a conclusion.

Lesson planning

A lesson plan can be in standardised format or just some personal notes. It serves as a road map for the lesson, starting with the introduction, followed by the main body and finally ending with a summary or a conclusion. We will discuss lesson planning in chapter four.

Lesson introduction

A normal introduction should last from 30 seconds to 2 minutes. It should work like a 'hook' designed to catch the listeners' interest.

The students form their opinion and motivation during the lesson introduction. They subconsciously ask two typical questions: 'Is this interesting?' and 'Why do I need to know this?' A normal introduction should last from 30 seconds to 2 minutes. It should work like a 'hook' designed to catch the listeners' interest. The same kind of 'hook' is dangled in front of

you every day when you watch TV and read newspapers or magazines. Newspapers always use 'hooks' - they are called headlines. A good TV 'hook' is never longer than 30 seconds because media research has determined that this is the attention span of an average viewer. How do you find a good introduction? One of the most popular introductions is an opening based on the material. The instructor can start with a story or similar item connected to the lesson's subject.



Fig. IH 3.2

Here is a list of some introduction hooks:

- Quotations
- Rhetorical questions
- Humour
- Stories
- Historic events
- Statistics
- Facts.

I have used various introductions throughout this book. Can you recognise them?

Quotations

Quotations are easy to find and can be tied to your topic. I once used this quotation from The Oxford Dictionary of Humorous Quotations: *'Most people tire of a lecture in ten minutes; clever people can do it in five. Sensible people never go to lectures at all'* (S. Leacock 1922).

Rhetorical questions

Asking a rhetorical question is another effective start. A rhetorical question is asked just for effect with no answer expected. For example: *'Why is it so difficult to listen? Why is it hard to pay attention for more than 30 seconds before our minds start wandering? Why can we only speak about 180 words per minute and listen to 900?'*

Humour

People like to laugh and humour can be a powerful 'hook'. A word of caution, be careful with jokes and avoid rude language. Make sure you are not offensive and avoid religious, cultural, racist or sexist jokes.

Stories

We all love stories, especially if they are real. For example: *'Let me tell you how the authorities made requirements for minimum altitudes. It all started back when the 500 meter high Eiffel Tower was the tallest structure and...'*

Personal stories are also effective, but avoid unrelated 'war stories'. Stories should be relevant and relate to the topic. They should not be designed to impress or draw personal attention and admiration.

Statistics

There are good and bad effects with statistics. The bad effect is that they tend to put students to sleep. The good effect is that dramatic, carefully selected and presented statistics *keep* students from going to sleep.

Transition from the introduction to the lesson's main body

The introduction does not have to end abruptly after two minutes, it can last longer. You should get to your first point, the attention getting hook, as soon as possible. A good introduction leads into the main body of the lesson without an abrupt transition.

A rhetorical question is asked just for effect with no answer expected.

Lesson content

We have discussed how an instructor must know the material and also be able to pass it on to the students. A typical lesson will be based on a syllabus that only lists the main subjects while *you* need to teach details. Should you know all details by heart? Licensing requirements state that instructors must have the licence, rating and qualification for each course that they are teaching. Subject matter experts can be approved to teach a selected topic, but the instructor must have the required knowledge. You are expected to have a good understanding of the subjects that you teach; however, it is not possible to remember every

Do not use offensive humor and avoid religious, cultural, racist or sexist jokes.