

# **The Planning and Preparing of Lesson Plans**

## **Introduction**

The following gives an effective method to plan and prepare a lesson plan. This unique method has been proven successful and easy to apply by new and experienced instructors alike. Although this method utilizes many of the universally accepted principles of lesson planning, it should be emphasized one must have a fundamental understanding of Part 1 of the Flight Instructors Guide prior to using this format.

The term “lesson plan” is also used in Part III of the Flight Instructor Guide. In this context it is used as more of a flight itinerary and should not be confused with the subsequent material.

## **A Review**

### **What is a lesson plan?**

A lesson plan is a planning technique used by instructors and teachers to ensure that a coherent presentation of a lesson is given to the student(s). The lesson plan often includes the following:

- an introduction, body or development, and a conclusion
- an outline of major and sometimes minor teaching points
- an organized list of questions and answers
- visual support instructions and plan
- verbal support points

### **Why do we use a lesson plans?**

- it acts as a guide and keeps you on track during your presentation.
- it ensures the instructor meets his objective and therefore adds to professionalism.
- ensures that important teaching points are not overlooked.

### **When do we use lesson plans?**

A flight instructor will use lesson plans for ground school and preparatory ground instruction.

## **A. Planning for a Lesson**

### **1) Determine the objective(s) for the lesson**

Reasons:

- defines purpose of lesson and will begin to structure a lesson.
- enables the instructor to tell the student(s) specifically what he is expected to be able to do or know by the end of the lesson.
- guides the instructor to areas for research and review.
- determining the objectives will give the instructor some idea of how much preparation time he will need for his overall planning.

- keeps the instructor on track throughout his planning.

Examples of “instructor objectives” can be found with each air exercise in the Flight Instructor Guide.

## **2) Determine method of testing**

Reasons:

- the testing must be taken into consideration in planning and managing available time for the presentation.

Consider:

- determine whether oral questioning, written tests, observations of task or combination thereof would be most effective and practical.

## **3) Determine time needed for presentation**

Reasons:

- this will assist in determining how much preparation time will be needed.
- the time available may necessitate dividing “must know” and “nice to know” material.
- the available time may not be adequate for meeting the objectives in one lesson.
- enables the planning for breaks.

## **4) Determine student(s) level of knowledge**

Reasons:

- this will service as a guide in preparing a threshold knowledge test.
- gives the instructor a link or relationship for a starting point.
- common ground with the student(s) can be established.
- student boredom or frustration can be prevented.

## **5) Obtain all references and resource materials**

Reasons:

- sufficient time in research and review will manifest itself in any professional presentation.
- it may take considerable time to obtain certain materials such as library texts and films or arranging an interview with an expert.
- visual and verbal support can be obtained from this material.

## **6) Determine methods of instruction or presentation**

Reasons:

- you must consider whether one or more methods will serve best for maximum utilization of time and effectiveness of the lesson.

Consider:

- lecture material
- developmental teaching

- demonstration performance
- the knowledge level, size of your class and available time will be three main factors in selecting the method(s)

## **B. Preparing a Lesson Plan**

When the initial “planning for a lesson” has been completed the instructor is now ready to begin the actual development of the lesson plan. The nine steps that follow form a comprehensive lesson planning guide.

- 1) Write out questions that you want your students to be able to answer. Initially, do not worry about order or number of questions. Try to include as many “How” and “Why” questions as possible.**

Reasons:

- this will ensure that the answers will be in your presentation and prevents cramming in material from last minute thoughts.
- the answers to these questions will serve as major and minor teaching points of your lesson.

Consider:

- keep the original objective(s) in mind.
- use thought provoking questions that will leave no doubt in your mind the objective(s) has been achieved.

- 2) Divide your questions into three sections determined by your topic. The majority of people remember in groups of three easily.**

Reasons:

- dividing your questions begins to give your lesson body a logical coherence.
- dividing your questions will also segment your lesson into needed stages.

Consider:

- some questions will be on minor and some on major teaching points, use the major point questions at the end of each segment and for the final checkup.
- each segment of a longer lesson plan should be approximately 8-12 minutes long because of our natural attention span.
- revise, reword, add or subtract questions as much as you consider necessary.

Questions from Incipient Spin Preparatory Ground Instruction could be divided as follows:

<b>A) Theory &amp; Safety</b>	<b>B) Entry &amp; Recognition</b>	<b>C) Recovery</b>
Considerations		
1 - Q	1 - Q	1 - Q
2 - Q	2 - Q	2 - Q
3 - Q	3 - Q	3 - Q

**3) Write down the “answers” to questions in somewhat more detailed form than you would expect students to answer and identify the major and minor teaching points.**

Reasons:

- the answers are the major and minor teaching points of your lesson.
- writing them out in more detail than you would expect your students to answer will ensure that you fully understand the material.
- this will ensure that clear explanations are given to your students during the presentation.

Consider:

- these answers have already been divided in the previous stage and you should now have the majority if not all the teaching points of your lesson in a logical order.

**4) Prepare (if applicable) some form of “Visual Support” (Review pages 33 - 34 in F.I.G.) for each major point - (this will help both student and instructor since the visual should remind the instructor of the point he wishes to get across)**

Consider:

- preparing visual support after you have the answers or teaching points will ensure you only support major points and do not waste time and effort on visual support for minor or insignificant points.
- the major points on a board or overhead can in itself be a form of visual support.
- in most cases the visual support should occur in the instructor’s mind first.
- when you are teaching anytime you must look at notes or other references to remind you of a point, that point deserves visual support, since the student will also forget the point.
- should be simple, accurate, legible, concise.
- if possible, use a variety of types and colors.

**5) Prepare “Verbal Support” for each major point. Forms of verbal support are:**

<b>REASONS</b>	<b>- Why</b>
<b>EXAMPLES</b>	<b>- May be true or imaginary</b>
	<b>- Give in clusters</b>
<b>STATISTICS</b>	<b>- Present visually, round off</b>
<b>COMPARISONS</b>	<b>- Similarity or difference to known facts</b>
<b>TESTIMONY</b>	<b>- Quote expert who is known</b>
	<b>- Paraphrase</b>

Reason:

Good teaching is like a good sales presentation, you must be convincing to be successful. An intelligent listener is silently asking “so what?” or “for instance?” to every bold assertion an instructor makes. The good instructor will give

explanations, clarifications, or proof of his main points by supporting them with examples, comparisons, statistics, testimonies and reasons.

### Reasons

Reasons are statements offered in support of facts or beliefs. We give our teaching meaning by giving reasons for our statements, for example: “there are two reasons why we must know our powers of arrest without warrant. First.....Second.....”. This is more meaningful than simply stating, “we must know our powers of arrest without warrant”.

It is critical that the question “Why?” about the main ideas of your session be answered to the satisfaction of the students.

### Examples

An example is a sample, a situation or a pattern that is similar to what you are trying to explain. Examples may be factual or imaginary. They create interest and have high attention value, but **THEY MUST BE SUITED TO THE BACKGROUND MATERIAL**. Be sure they support your ideas.

e.g. - To support and clarify that age is not a requirement for outstanding achievement, the following may be cited:

“Alexander Graham Bell invented the telephone at the age of 28. Henry Ford built his first car at the age of 29. Lord Byron published his first book of poems at the age of 19. Grandma Moses started to paint at the age of 80”.

### Comparisons

A comparison is an explanation of the similarities and/or differences between words or situations. They are attention-getters and add realism and meaning to otherwise uninspiring statements. **THEY FORM A BRIDGE BETWEEN THE KNOWN AND UNKNOWN**.

Examples:

- similar ideas
- compare Canadian Parliamentary system to the U.S. Republican system
- imaginary situations such as comparing two cars hitting head on, to dropping a car from the top of a ten story building

### Statistics

Statistics are facts and figures used as “PROOFS” to establish your ideas, but they are weak. Use them only for your main points, and use them sparingly, as they can easily become confusing and boring. Rounded-off numbers are more easily understood than exact figures. Present visually with the aid of charts or graphics wherever possible, or simply write the important figures on the whiteboard.

## **Testimony (Quotations)**

Testimony is a quotation from a noted authority. This EXPERT OPINION lends support to your ideas and adds variety to a lesson. Be sure your quotation comes

from an expert in the field being discussed. Do not quote Dr. Spock on Criminal Law, or the Chief Justice of the Supreme Court of Canada on child care. Keep testimony short - it is effective for opening and closing and to add spice and humor throughout. Avoid “quote” and “unquote” when reading or presenting a testimony.

An easy way to remember these forms of verbal support is by using the terms CREST or CERTS.

Comparisons	Comparisons
Reasons	Examples
Examples	Reasons
Statistics	Testimony
Testimony	Statistics

When using verbal support consider:

- repetition should be used with caution, rewording or restating in a different way is often necessary for clarification.
- good verbal support creates mental pictures.

## **6) Prepare Summary and Closing Statement**

**Consider:**

- summarizing of main points satisfies the learning factors of recency and exercise.
- prior to summarizing a final checkup must be done to confirm the objectives have been met.
- the final checkup is done by a skill demonstrated, knowledge explained or problems solved.
- do not interrupt or distract the student at this stage.
- approximately 10% of the lesson can be in the final checkup.
- give feedback and clear up misunderstandings.
- a well thought out and dynamic closing statement can remotivate a student (last things learned are long remembered).

## **7) Prepare the Introduction**

- Review page 3 and 30 of the F.I.G.

**Consider:**

- we plan the introduction last because we now know exactly what we are introducing, therefore be more dynamic - first things seen or heard will be remembered longest.
- an orientation board could now be made.

The **Lesson Plan Introduction** should set the stage with an opening statement to gain attention. Lead in by answering the questions presumably posed by students at the beginning of any lesson.

- What will we be doing?
- What am I expected to be able to do by the end of the lesson?
- Why should I take part and how will I benefit from learning this skill or knowledge?
- Where does this lesson fit into the overall picture?

Answer the above questions in any order that fits the need. Plan an orientation board and refer to it during the introduction. This will provide visual support during the introduction. It will also orient the student as the lesson progresses minimizing the chances of questions being asked on material yet to be covered. Below is a sample orientation board.

### **CHANGING A FLAT TIRE**

- Equipment
- Safety
- Procedure

#### **8) Assemble lesson according to the Lesson Plan Format shown in “Appendix A”.**

**Time** should be allotted for each segment of the lesson plan. This is critical as it will assist you in staying on schedule.

List your **SUBJECT MATERIAL** in point form, this will prevent reading during delivery. This applies to the Introduction, Body, Final Check-up and Conclusion.

All of your **INSTRUCTOR ACTIVITIES** should be listed on the Lesson Plan Format. This reminds you of what you will require in the form of teaching aids and what you have to do to prepare for the lesson.

#### **9) Rehearse sufficiently and if possible, have a fellow instructor monitor or use a video camera.**

Reason:

- rehearsal will also improve delivery techniques.
- you will become more adaptable to change by rehearsal.
- your level of confidence will increase which can lead to a contagious enthusiasm.

The nine steps used in **Preparing A Lesson Plan** have been summarized in “Appendix B”.

A **Guide For Monitoring Instruction** has been included as “Appendix C”. This serves as a useful tool for critiquing your own work and that of others.

## APPENDIX A

TIME	SUBJECT MATERIAL	INSTRUCTOR ACTIVITY
	<b><i>Introduction:</i></b>	
	What?	
	Why?	Plan an Orientation Board
	Where?	
	<b><i>Body: Stage 1</i></b>	
	Brief Introduction	Notes requiring action by
	Present Teaching Points	Instructor
	Teaching Support	E.G:
	Student Participation	<ul style="list-style-type: none"> <li>• O.H.P. #1</li> </ul>
	Check-up	<ul style="list-style-type: none"> <li>• Use of other training aids</li> </ul>
		<ul style="list-style-type: none"> <li>• Verbal Support</li> </ul>
	<b><i>Stage 2</i></b>	<ul style="list-style-type: none"> <li>• Class Arrangement</li> </ul>
	Brief Introduction	<ul style="list-style-type: none"> <li>• Etc....Etc....</li> </ul>
	As above in Stage 1	
	Stages 3 & 4, if required	
	<b><i>Final Check-up (on objective)</i></b>	
	Identify weak points	
	Clear up misunderstandings	
	<b><i>Conclusion</i></b>	
	Summarize main points	
	Remotivate	
	Issue assignments	
	Closing statement	



Note: The term “lesson plan” is also used for inflight lessons in the Flight Instructor Guide. In this context it becomes an itinerary utilizing the Demonstration-Performance method of teaching.

### **PREPARING A LESSON PLAN**

(3)	(3)	(3)			
_____	_____	_____			SC
(4) (5)	(4) (5)	(4) (5)			(6)
(7)	(2)	(2)	(2)	(1)	

- (1) Write out QUESTIONS that you want your students to be able to answer. Initially do not worry about order or number of questions. Try to include as many HOW and WHY questions as possible.
- (2) Divide your questions into THREE SECTIONS determined by your topic e.g. Past, Present, Future, - Known, Unknown, Abstract, - Steps in a procedure divided to ensure learning.
- (3) Write down the ANSWERS to questions in a somewhat more detailed form than you would expect students to answer and identify the major and minor teaching points.
- (4) Prepare (if applicable) some form of VISUAL SUPPORT for each major point – (this will help students and will also help you.) since the visual should remind you of the point you wish to get across. When you are teaching - anytime you have to look at notes or other reference to remind you of a point - that point deserves a visual aid, since the student will also forget the point.
- (5) Prepare VERBAL SUPPORT for each point in the form of: REASONS, EXAMPLES, COMPARISONS, STATISTICS, or TESTIMONY.
- (6) Prepare a SUMMARY and CLOSING STATEMENT.
- (7) Prepare INTRODUCTION answering the questions:
  - What are the students going to be doing during the lesson and more specifically WHAT will they be able to do by the end of the lesson?
  - Why should they learn?
  - How will they benefit?

■ Where does the lesson fit into the overall picture?

(8) Assemble lesson according to Lesson Plan Format, page 3 and abbreviate and shorten where necessary for presentation.

(9) Rehearse sufficiently.

(Did the Instructor?) Y=Yes S=Some N=No

<b>PREPARATION:</b>	<b>Y</b>	<b>S</b>	<b>N</b>
1. Have a useful LESSON PLAN?			
2. Prepare classroom area?			
3. Check training aids?			
<b>INTRODUCTION:</b>			
1. State WHAT the student would do?			
2. Tell the student WHY it is important?			
3. Tell the student WHERE it fits in?			
<b>PRESENTATION:</b>			
1. Start at level of student understanding?			
2. Identify major points?			
3. Emphasize major points?			
4. Give clear explanations?			
5. Give clear demonstrations?			
6. Use VISUAL SUPPORT?			
7. Use VERBAL SUPPORT?			
8. Spend time relative to importance?			
9. Use voice variation?			
10. Use gestures?			
11. Use eye contact?			
<b>STUDENT ACTIVITY:</b>			
1. Correct errors?			
2. Use sound questioning technique?			
<b>CHECKING THE STUDENT:</b>			
1. Evaluate learning by stages?			
2. Confirm correct response?			
3. Praise for correct response?			
4. Handle student questions?			
<b>TEST:</b>			
1. Test student on objectives?			
2. Conduct final check-up effectively?			
3. Inform students of results?			
<b>CONCLUSION:</b>			

1. Summarize major points effectively?			
2. Remotivate students?			

(If you can't suggest a way to overcome a weakness, the instructor does not have that weakness)