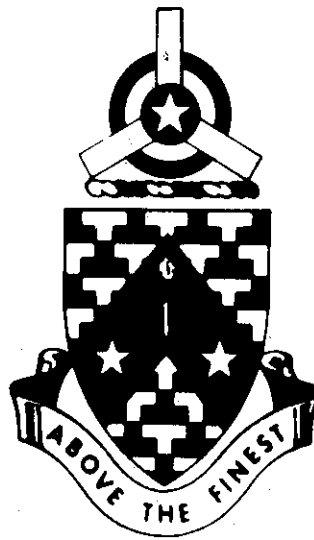


PROGRAMED TEXT

MILITARY INSTRUCTION



MARCH 1968

UNITED STATES ARMY
PRIMARY HELICOPTER SCHOOL
FORT WOLTERS, TEXAS

PROGRAMED TEXT

PROGRAM TEXT

FILE NO:

PROGRAM TITLE

Military Instruction

POI SCOPE: First Period. How a student learns, characteristics of military students. The principles of instruction, qualification of a good instructor, the stages of instruction, techniques of questioning, characteristics of training aids.
Second Period. Impromptu talks by selected members of the class.

INSTRUCTOR REFERENCES:

FM 21-6 Chapter 1 and 3

PREPARED BY:

DATE: April 1968


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May 1968

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Military Instructions

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PREFACE

As aviators and officers in the United States Army each of you may be called upon to instruct those personnel working with and/or for you. Training is a never ending process in our modern Army and continues even today in Vietnam.

All officers must know how to teach. As a highly skilled technician you will have an excellent knowledge of particular phases of the military profession; but in order to teach others, you must also know the best methods and procedures for imparting this knowledge.

This text is designed to give you these methods and procedures thus enabling you to fulfill your role as an instructor whenever and wherever you are called upon to instruct.

Start with frame 1 and work each frame in succession. Each frame will usually ask you a question. The correct answer is printed on the top of the next frame. If you were incorrect, turn back and restudy the information before continuing on to the next frame. When you have finished the text, complete the self evaluation exercise. Now begin by studying the performance objectives on page 1.

PERFORMANCE OBJECTIVES

Upon completion of this text and without the aid of references, you will be able to:

- A. Recognize how a student learns.
- B. Recognize the characteristics of military students.
- C. Identify the principles of instruction.
- D. Select the qualifications of a good instructor.
- E. Identify the stages of instruction and their elements.
- F. Recognize the advantages and proper techniques of questioning.
- G. Identify the value and desirable characteristics of training aids.

FRAME 1

Learning is an active process of acquiring new knowledge. It enables a person to do something he could not do before. In your role as an instructor, you help the student to learn through stimulating as many of the five senses as possible.

Match the senses listed below with the examples.

- | | |
|------------------------------------|------------|
| <u>a</u> 1. lecture | a. sight |
| <u>a</u> 2. still pictures | b. hearing |
| <u>e c d</u> 3. sampling food | c. touch |
| <u>b a c</u> 4. flying an aircraft | d. taste |
| <u>b a</u> 5. motion picture | e. smell |

TURN TO PAGE 4 FOR FRAME 2.

ANSWER: 1,2,4,6

FRAME 13

It is during the PRESENTATION STAGE, the second stage of instruction, that the instructor is finally able to impart his knowledge to the students. Since this is where the majority of learning takes place you should be familiar with the different parts of the stage. These parts are:

A. Introduction

1. attention
2. need-convincing reason of lesson importance
3. scope-state of the objectives

B. Body - explanation of the objectives

C. Conclusion

1. summary-brief review of material presented
2. closing statement-a statement that leaves a positive and lasting impression about the subject in the student's minds.

1. The student receives the material three times during a period of instruction. List these three times.

2. Should new material be presented in the conclusion?

TURN TO PAGE 5 FOR FRAME 14.

ANSWERS

1. b, a 3. d,e 5. a,b
2. a 4. a,b,

FRAME 2

Soldiers are adults and must be treated as such. As an instructor you must develop a good relationship with your student by understanding their varying characteristics: they have a serious purpose, they are interested in the why and how of any instruction, and they come from all walks of life.

From this we could describe the military student as being:

- ☒ A mature individuals
- ☒ B practical, sincere students
- ☒ C various backgrounds
- ☒ D all of the above

TURN TO PAGE 6 FOR FRAME 3.

- ANSWER: 1. scope, body, summary
2. no, it is only a review

FRAME 14

The third stage is the APPLICATION STAGE. Another name for the APPLICATION STAGE is practical exercises. Although team or individual performance is stressed in this stage it must be supervised. The instructor must keep the conditions realistic, the achievement standards progressive, and insure that practice makes perfect.

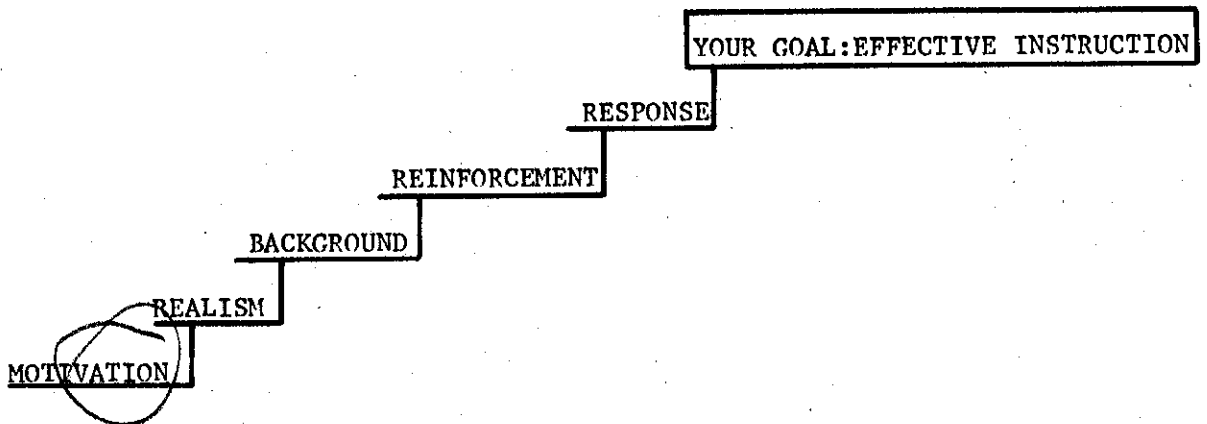
What is the purpose of the APPLICATION STAGE?

- ☒ a. apply principles learned
- b. take examinations
- ☒ c. practice procedures
- d. critique the instruction

ANSWER: D

FRAME 3

The principles of instruction describe the conditions and requirements for effective teaching and, thus, effective learning.



A student must want to learn before he can be taught. Of the principles depicted above, which is the most important?

ANSWER: a and c

FRAME 15

The fourth stage of instruction is the EXAMINATION. Examinations aid in improving instructions by discovering gaps in learning, reemphasizing main points of a class and evaluating instructional methods. They also provide a basis for assigning grades and furnish a basis for selection for further schooling and for guidance. Examinations are a means of teaching, therefore must be written with care, constantly evaluated, and updated.

This stage utilizes two principles of instruction. Circle the correct principles.

1. motivation
2. realism
3. response
4. background
5. reinforcement

ANSWER: motivation

FRAME 4

Although most of your students will have a small amount of self-motivation, you must stimulate this motivation by showing the student a need for knowing the subject. Example: "This class on 'Disarming the Bouncing Betty Anti-personnel Mine' is being given to you because if you do not follow the procedure exactly, you will be blown apart!"

What is the "need" for you learning the technique of military instruction?

ANSWER: 3,5

FRAME 16

The fifth and last stage of instruction is the CRITIQUE. In the critique the instructor should restate the objectives of the period of instruction and then review the main points or procedure used. Any questions that the students have should be discussed and answered.

When should the critique be used?

1. following all instruction
2. following all examinations
3. following all application periods
4. whenever the instructor deems it necessary

ANSWER: Because as an officer you will be required to give classes.

FRAME 5

Once you have the student motivated, have his interest, and have shown a need, you must keep him motivated throughout the class.

Circle the items listed below that would assist any instructor in keeping his student's interest.

- ☒ personal force and enthusiasm
- ☒ illustrations
- ☒ realism
- d. none of the above

ANSWER: 2,3

FRAME 17

Instruction must not be a one way street. Mere exposure of the students to the instruction offers little guarantee of learning. However by requiring the students to respond, you increase their chance of learning. A response can be obtained through questions asked by the instructor.

When a question is asked it can:

- ☒ a. improve student interest
- ☒ b. provide emphasis of main points
- ☒ c. check effectiveness of instruction
- d. break the flow of instruction

ANSWER: a,b,c

FRAME 6

Since learning is often based on past experience and education of the student, your instruction should use his past experience as a foundation on which to build new knowledge.

In relating aircraft maintenance to automotive maintenance, which most of the students have had some experience with, the instructor has appealed to which of the following principles?

- a. motivation
- b. reinforcement
- ☒ c. background

ANSWER: a,b,c

FRAME 18

Questions not only require the students to respond but they also:

- ☒ a. indicate gaps in instruction when wrong answers are given
- ☒ b. reveal student attitudes
- ☒ c. permit student contributions
- d. cannot check the instructors effectiveness

ANSWER: c

FRAME 7

In a programmed text the student is presented some information, asked to answer a question pertaining to the information, and then given the correct answer. In a classroom lecture, information is presented orally, questions are asked or examinations are given and correct answers or examination critiques are given.

These methods of instruction cover the next two principles of instruction. Can you select them from the list below? Circle the correct ones.

- a. motivation
- b. realism
- ☒ c. student response
- ☒ d. reinforcement

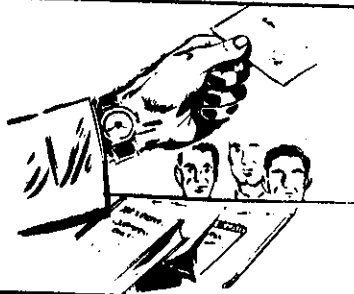
ANSWER: a,b,c

FRAME 19

To be effective a question should be asked using the following technique.



1. ASK THE QUESTION



2. PAUSE.



3. CALL ON THE STUDENT.



4. ACKNOWLEDGE STUDENTS
ANSWER OR GIVE
CORRECT ANSWER

Select the question that has been asked using the correct technique.

- a. Candidate Jones, what is the proper questioning technique?
- b. What is the proper questioning technique?
- c. What is the proper questioning technique, Candidate Jones?
- ☒ d. What is the proper questioning technique? (pause) Candidate Jones.

ANSWER: c,d

FRAME 8

The last principle of good instruction is one that can assist the instructor in motivating his students and maintaining their interest as well as helping the student to learn.

Example: CW-4 Smith, an instructor pilot, emphasized the need of precision autorotations by relating a few of his personal experiences.

CW-4 Smith used the principle of:

- a. background
- b. reinforcement
- ☒ c. realism
- d. response

ANSWER: d. (Calling on a student before asking the question stops the other students from thinking about the answer.)

FRAME 20

Since good training aids are powerful instructional tools, most instructors use them; however, a bad training aid can do as much harm as a good one can assist. Every training aid should meet the following characteristics:

Appropriate - should be relevant to the subject matter

Simple - should be easily understood

Accurate - all facts and figures are correct and based on current doctrine

Portable - should be light weight or constructed for easy disassembly

Manageable - easy to operate

Attractive - lend to eye appeal and important points stand out

Necessary - illustrate essential material and contribute to accomplishment of objectives

Evaluate each of the following aids as to satisfactory or unsatisfactory for each characteristic.

1. The training aid is a cut away helicopter transmission. The parts are color coded. The weight is 175 pounds. There are 55 students with the closest one 10 feet away and the most distant one is 30 feet away. The class is on maintenance of this transmission. The instructor has trouble moving the parts of the transmission to demonstrate its operation.

Circle "S" for Satisfactory or "U" for Unsatisfactory for each characteristic.

- | | | |
|------------------------------------|------------------------------------|----------------|
| <input checked="" type="radio"/> S | U | 1. appropriate |
| <input type="radio"/> S | <input checked="" type="radio"/> U | 2. simple |
| <input checked="" type="radio"/> S | U | 3. accurate |
| <input type="radio"/> S | <input checked="" type="radio"/> U | 4. portable |
| <input type="radio"/> S | <input checked="" type="radio"/> U | 5. manageable |
| <input checked="" type="radio"/> S | U | 6. attractive |
| <input checked="" type="radio"/> S | U | 7. necessary |

ANSWER: c

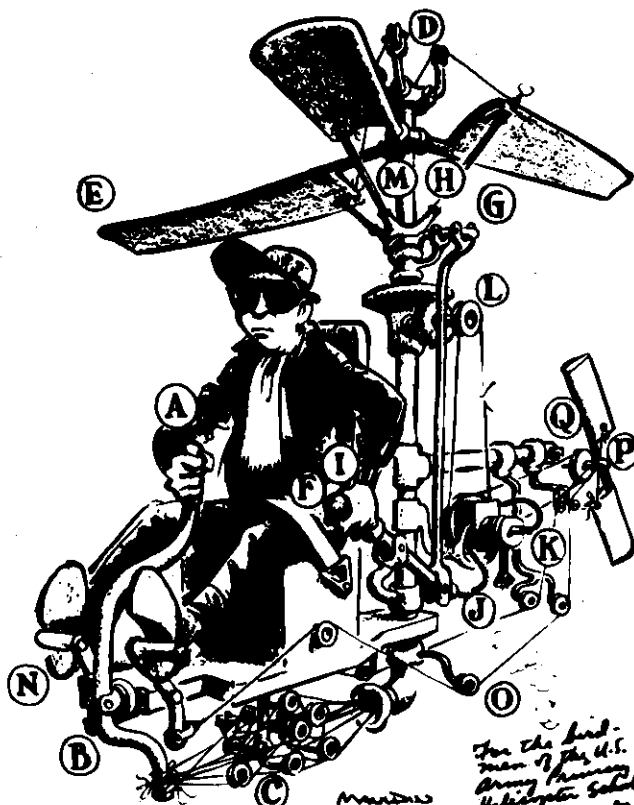
FRAME 9

Write the principles of instruction that is employed by each of the following examples.

1. Relating an example of how the instruction being given was actually used.
realism
2. Explaining the flying of a helicopter as compared to driving a car.
experience background
3. Informing a student of why he must learn the subject and how he can use it in practice.
motivation
4. Questions in this program.
response
5. Reviews at the end of a class.
reinforcement

ANSWER: 1. S 2. U 3. S 4. U 5. U 6. S 7. S

2. Class is on personnel management. The picture is displayed on a screen but only about half the students can see the entire picture.



CHRYSLER & LA GARDNER
A detailed simplified sketch of a typical helicopter's rotor. Gyroscopic effect (A) is gyroscopic (B), the connections (C) to individual pitch controls (D) of rotor blades (E). Differential pitch has effect of limiting rotor system in direction of desired flight. Collective stick (F) controls pitch of all rotor blades simultaneously (G). Collective handle (H) controls throttle (I) of engine (J) which drives (K) rotor shaft (L). Master pedals (M) are connected (N) to pitch control (P) of tail rotor (Q), which controls helicopter left or right. (Fuel tank, landing gear, instrument panel not shown. This machine still in experimental stage in author's basement.)

For the kind-
ness of the U.S.
Army Training
Helicopter School
with regards
very truly
yours
M. J. G.

Circle "S" for Satisfactory or "U" for Unsatisfactory for each characteristic.

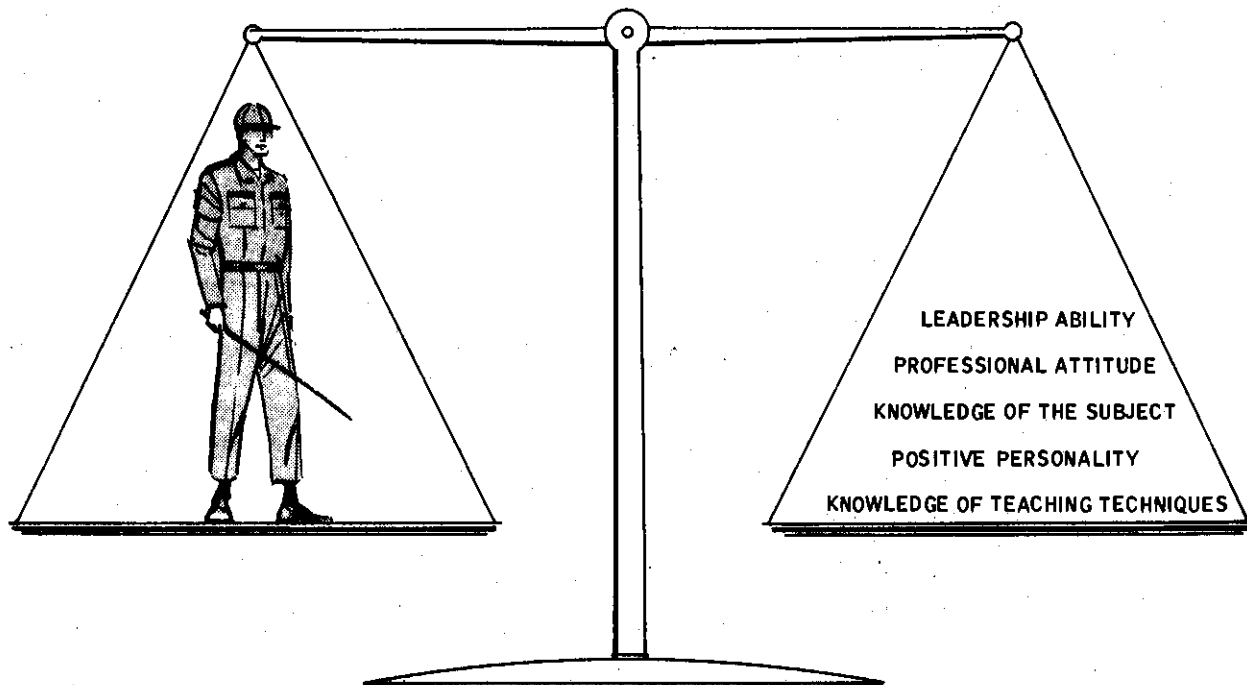
- | | | |
|---|----|----------------|
| S | 11 | 1. Appropriate |
| S | 12 | 2. Simple |
| S | 13 | 3. Accurate |
| U | 14 | 4. Portable |
| U | 15 | 5. Manageable |
| S | 16 | 6. Attractive |
| S | 17 | 7. Necessary |

ANSWER: 1. realism, 2. background, 3. motivation, 4. response, 5. reinforcement

FRAME 10

The illustration below depicts the characteristics of a good instructor. No doubt you are familiar with them in that every good instructor you have ever known has had them. Study the characteristics briefly then work the exercise below the illustration.

CHARACTERISTICS OF A GOOD INSTRUCTOR



Candidate Smith, student pilot, has just asked CW-2 Jones, instructor pilot, a question pertaining to a completed flight period. Match the remarks made by CW-2 Jones with the characteristics he violated. Each part of the remarks may be used more than once.

- C 1. Leadership ability
- a 2. Professional attitude
- dr 3. Knowledge of the subject
- adr 4. Positive personality
- any 5. Knowledge of teaching

- a. "##*??*#11# Candidate!
- b. I don't know besides it is in the flight manual.
- c. Look it up yourself!
- d. If you would study your manual more and ask me fewer questions you could be as good as me!"

ANSWERS: 1. U, 2. U, 3. U, 4. S, 5. S, 6. U, 7. U

3. The class is on the Character Guidance Program. The list below is displayed on a screen visible to the entire class.

SPECIFIC OBJECTIVES OF THE CHARACTER GUIDANCE PROGRAM

1. AN UNDERSTANDING OF THE DIGNITY OF MAN
2. THE LOGIC OF SELF-DISCIPLINE
3. AN AWARENESS OF INDIVIDUAL RESPONSIBILITY
4. AN ACCEPTANCE OF SOCIAL OBLIGATION
5. RESPECT FOR LAWFUL AUTHORITY
6. SATISFACTION IN THE PROPER PERFORMANCE OF DUTY
7. A PATRIOTIC RESPONSE TO OUR DEMOCRATIC FOUNDATIONS
8. A RECOGNITION OF OPPORTUNITIES WHICH THE ARMY AFFORDS

Circle "S" for Satisfactory or "U" for Unsatisfactory for each characteristic.

<input type="radio"/>	U	1. appropriate
<input type="radio"/>	U	2. simple
<input checked="" type="radio"/>	U	3. accurate
<input type="radio"/>	U	4. portable
<input type="radio"/>	U	5. manageable
<input type="radio"/>	U	6. attractive
<input type="radio"/>	U	7. necessary

ANSWER: 1. c; 2. a; 3. b; 4. a,d; 5. a,b,c,d

FRAME 11

The observations listed below were made during a class presented by CW-3 Brown. Match the characteristics with each appropriate observation.

OBSERVATIONS

- A. 5 Material presented followed a logical sequence.
- B. 5 Asked questions of students.
- C. 5 All students were awake and appeared very interested.
- D. 5 Examples and stories used were directly related to the subject.
- E. 4 CW-3 Brown's uniform and appearance were immaculate.
- F. 2 The students were well disciplined in this class but in other classes they were very noisy.
- G. 1 CW-3 Brown never talked down to his students.
- H. 5 CW-3 Brown called all students by their correct name and rank.
- I. 2 CW-3 Brown was completely familiar with the subject and was able to answer all the students questions.
- J. 6 CW-3 Brown is well liked by all students.

CHARACTERISTICS

1. Leadership ability
- 2 Professional attitude
3. Knowledge of the subject
4. Positive personality
5. Knowledge of teaching techniques

ANSWER: 1. S, 2. S, 3. U(responsibilities), 4. S, 5. S, 6. S, 7. S

FRAME 21

Good Training aids used properly can bring several benefits to the instructor.

Select the benefits from the list below.

- ☒ a Appeal to the senses.
- ☒ b Interest the student.
- ☒ c Develop understanding.
- ☒ d Save time.

ANSWERS:	A. 5	E. 2	I. 3	(These are the main ones, others may apply.)
	B. 5	F. 1	J. 4	
	C. 5	G. 5		
	D. 5	H. 2		

FRAME 12

Since we have discussed both the student and the instructor let us venture into the five stages of instruction that transfer knowledge from the instructor to the student.

The first stage of any instruction is the PREPARATION STAGE. Since no instruction takes place during this stage which of the following would you as the instructor be required to do?

1. determine the objectives
2. write the lesson plan
3. present the instruction
4. rehearse
5. administer a practical exercise
6. check equipment, classroom, etc.

RETURN TO PAGE 3 FOR FRAME 13.

- ANSWER:
- a. Appeal to the senses - necessary for learning.
 - b. Interest the student - motivation and focus student's attention on major points.
 - c. Develop understanding - good aids simplify, add emphasis, and clarify difficult points.
 - d. Save time - help students learn faster.

FRAME 22 INFORMATION FRAME.

During the next few months you will observe many instructors and instructional methods. Study the techniques and procedures they use. A thorough knowledge of these procedures and techniques will make your first encounter with the platform much easier, and certainly very successful.

The combat success of the Army depends upon the effectiveness of the instruction that individuals and units receive.

CONTINUE TO THE SELF EVALUATION EXERCISE

INTENTIONALLY LEFT BLANK

MILITARY INSTRUCTION
SELF EVALUATION TEST

Questions 1-4 answer True or False

- ☒ F 1. An individual doing something he could not do before is the product of learning.
- T ☒ 2. A student's want or desire to learn is called reinforcement.
- T ☒ 3. The correct method to ask a question is: Call on student, pause, ask the question, give correct answer.
- ☒ F 4. Maintaining student interest is a technique of the principle of instruction.

Question 5 thru 15 select the best answer

5. The desired outcome of all instruction is
- a. better instructors.
 - ☒ b. student learning.
 - c. individual stimulation.
6. The single most effective principle of instruction is?
- a. Response
 - b. Objective
 - ☒ c. Motivation
7. The best learning is produced by maximum appeal to the
- a. objective.
 - b. motivation.
 - ☒ c. senses.
8. Select two techniques that cause student motivation.
- a. Background + reinforcement
 - ☒ b. Show need + maintain interest
 - c. Good relationship + enthusiasm

9. The five stages of instruction are

- a. practical exercise, demonstration, review and critique.
- b. questions, review, discussion, presentation, and examination.
- ☒ c. preparation, presentation, application, examination, and critique.
- d. introduction, need, scope, body, and examination.

10. An effective training aid must be

- a. stationary, convenient, and manageable.
- b. inexpensive, accurate, and small.
- ☒ c. appropriate, simple, necessary.

11. A student receives the main points of a class three times. At which time during the instruction does he receive the information for the first time?

- ☒ a. Scope
- b. Discussion
- c. Conclusion
- d. Need

12. Good discipline can be achieved by

- ☒ a. good classroom leadership.
- b. unannounced tests.
- c. instructor objectiveness.
- d. call on sleeping students.

13. Military students want to know the how and why of all instruction. From this you could say they are

- a. sincere.
- b. practical.
- c. interested.
- ☒ d. all of the above.

14. The application stage is where

- ☒ a. the student applies what he has learned.
- b. the student is given an examination.
- c. the student receives a critique.
- d. none of the above.

15. Good training aids can

- ☒ a. decrease training time.
- ☒ b. help maintain interest.
- ☒ c. help student understanding.
- ☒ d. all the above.

MILITARY INSTRUCTION KEY TO SELF EVALUATION EXERCISE

1. True

2. False

3. False

4. True

5. b

6. c

7. c

8. b

9. c

10. c

11. a

12. a

13. d

14. a

15. d

Presentation stage

1. get att'n of class, introduction,
2. body
3. conclusion closing statements

Motivation to learn is the most important