I.E. Critique and Evaluation

References: Aviation Instructor's Handbook (FAA-H-8083-9)

Objectives The student should develop knowledge of the elements related to the critique and evaluation

as required in the CFI PTS.

Elements 1. Critique

2. Evaluation

3. Performance Tests

Schedule 1. Discuss Objectives

Review material
Development

4. Conclusion

Equipment 1. White board and markers

2. References

IP's Actions 1. Discuss lesson objectives

2. Present Lecture

3. Ask and Answer Questions

4. Assign homework

SP's Actions 1. Participate in discussion

2. Take notes

3. Ask and respond to questions

Completion

The student has the ability to properly critique and evaluate students using the methods and characteristics described.

Standards characteristics described.

Instructors Notes:

Introduction:

Attention

The dreaded tests and awful instructor critiques, this is how you do it.

Overview

Review Objectives and Elements/Key ideas

What

The critique refers to the instructor's role as a critic, and the evaluation portion discusses creating and conducting effective evaluations.

Why

The instructor must be able to appraise student performance and convey this information back to the student. Also, throughout a course, and at the end of a course, a student must be evaluated to measure and document whether or not the course objectives have been met.

How:

1. Critique

- A. Purpose
 - i. Should provide the student with something constructive they can work on
 - ii. Provide direction and guidance to raise their level of performance
 - iii. Can be used for re-teaching in the case that several students falter at the same step

B. Characteristics

- i. Objective
 - a. Focused on student performance, not personal opinions, likes, dislikes, or biases
 - b. To be objective, a critique must be honest, and based on the performance as it was
- ii. Flexible
 - a. The performance must be examined in the context it was accomplished
 - b. Fit the tone, technique and content of the critique to the occasion as well as the student
 - c. Allow for variables and be flexible to satisfy the requirements of the moment
- iii. Acceptable
 - a. Before accepting the critique, students must accept the instructor
 - Must be confidence in qualifications, teaching ability, sincerity, competence and authority
 - b. Present it fairly, with authority, conviction, sincerity, and from a position of competence
- iv. Comprehensive
 - a. Cover strengths AND weaknesses
 - b. What will provide the greatest benefit?
 - A few major points or more minor points
 - Critique what most needs improved or only what can be reasonably expected to improve
- v. Constructive
 - a. The critique is pointless unless the student profits from it
 - b. Don't offer a negative critique without a solution
- vi. Organized
 - a. It needs to follow some pattern of organization otherwise it may lose its impact
 - Any pattern is acceptable as long as it is logical and makes sense to student and instructor

- b. Options include:
 - The sequence of the performance itself
 - Work backward from where the demonstration failed (or was successful)
 - Break the whole into parts or build the parts into a whole

vii. Thoughtful

- a. Reflects thoughtfulness to self-esteem, recognition, and approval from others
 - Ridicule, anger, or fun at a student's expense have no place in a critique

viii. Specific (rather than general)

- a. Tell the student why something was not good and how to improve it
- b. Students should have no doubt what was good, and what was poor, and how they can improve

C. Methods

- i. Instructor/Student Critique
 - a. The instructor leads a group discussion in which students offer criticism of a performance
 - This should be controlled carefully and directed with a firm purpose (not a free-for-all)
- ii. Student Led Critique
 - a. A student is asked to lead the critique
 - b. This can generate student interest and learning, and be effective
- iii. Small Group Critique
 - a. Small groups are assigned a specific area to analyze and present their findings on
 - Results in a comprehensive critique
- iv. Individual Student Critique by another Student
 - a. Another student is requested to present the entire critique
 - The instructor must maintain firm control over the process

v. Self-Critique

- a. A student is required to critique personal performance
- b. Do not leave controversial issues unresolved, or erroneous impressions uncorrected
- c. Make sure the student realizes the mistakes
- vi. Written Critique
 - a. 3 advantages
 - Instructor can devote more time and thought to it
 - The student can keep written critiques and refer to them whenever they wish
 - The student has record of suggestions, recommendations, and opinions of all other students
 - b. Disadvantage is that the other members of the class do not benefit

D. Ground Rules

- i. Do not extend the critique beyond its scheduled time limit and into time allotted for other activities
 - a. Point of diminishing returns is reached very quickly
 - b. No more than 10 15 min (Definitely not more than 30 min)
- ii. Avoid trying to cover too much
 - a. Get the main points (4-5 things to correct at most)
- iii. Allow time for a summary of the critique to reemphasize the most important things to remember
- iv. Avoid absolute statements (most rules have exceptions)
- v. Avoid controversies with the class and don't take sides
- vi. Never allow yourself to maneuvered into defending criticism
 - a. Don't let the student argue and tell you that you are wrong
- vii. If part of the critique is written, ensure it is consistent with the oral portion

2. Evaluation

- A. Purpose To determine how a student is progressing in the course
 - i. Evaluations: Oral Quiz, Written Test, Performance Test
- B. Oral Questions
 - i. Effective Oral Questions:
 - a. Have only one correct answer
 - b. Must apply to the subject of instruction
 - c. Should be brief and concise, but also clear and definite
 - d. Must be adapted to the ability, experience, and stage of training of the students
 - e. Center on only one idea
 - f. Should be limited to who, what, where, when, why, or how and not a combination
 - g. Must present a challenge to the student
 - h. Demand and deserve the use of proper English
 - ii. Types of Questions to Avoid
 - a. "Do you understand?" / "Do you have any questions?" have no place in effective quizzing
 - b. Puzzle Questions
 - c. Oversize
 - d. Toss-up
 - e. Bewilderment
 - f. Trick Questions
 - g. Irrelevant Questions
- C. Responding to Student Questions
 - i. The question must be clearly understood by the instructor before an answer is attempted
 - ii. Display interest in the student's question and frame an answer that's direct and accurate
 - iii. Determine whether the question has been completely answered, and if the answer is satisfactory
 - iv. If it is unwise to introduce more complicated info explain that the Q was good/pertinent but an answer would complicate the learning tasks and reintroduce the Q later in training if it's not covered
 - v. If an answer is unknown, freely admit not knowing, but promise to get the answer or help look it up
- D. Written Questions
 - i. Characteristics of a Good Written Test
 - a. Reliability The degree to which test results are consistent with repeated measurements
 - Does the test give consistent measurement to a particular individual or group
 - b. Validity the extent to which a test measures what it is supposed to measure
 - The most important consideration in test evaluation
 - Items that do not pertain directly to the objectives of the course should be removed
 - c. Usability Refers to the functionality of tests
 - Easily read, clear and concise, clearly used and drawn graphics, easily graded
 - d. Objectivity Describes singleness of scoring of a test
 - Biases of the person grading are not reflected (Easily graded in a fair manner)
 - e. Comprehensiveness The degree to which a test measures the overall objectives
 - A test must sample an appropriate cross section of the objectives of instruction
 - f. Discrimination The degree to which a test distinguishes the difference between students
 - A test must be able to measure small differences in achievement in relation to the objectives
 - When constructed this way, it has 3 features:
 - a A wide range of scores
 - b All levels of difficulty are included

- c Each item distinguishes between high and low achievers of course objectives
- ii. Developing Written Test Questions Each item:
 - a. Should test a concept or idea that is important the student knows/understands
 - b. Must be stated so that everyone competent in the area would agree on the correct response
 - c. Should be stated in language the student will understand
 - d. Should be worded in a simple, direct, and unambiguous way, and it should be edited for brevity
 - e. Should include sketches, diagrams, etc. when necessary to visualize the problem/add realism
 - f. Should present a problem that demands knowledge of the subject or course

3. Performance Tests

A. Characteristics

- i. Criterion Referenced* because the objective is for all applicants to meet the FAR standards
 - a. *Or, each student's performance is evaluated against a written, measurable standard
- ii. The PTS purpose is to delineate the standards by which FAA inspectors and DPE conduct tests
- iii. Parts include Areas of Operations and Tasks
 - a. Area of Operations define phases of the practical test arranged in a logical sequence within each standard
 - b. Tasks are titles of knowledge areas/flight procedures/maneuvers appropriate to an Area of Operation

B. Uses

- i. The instructor trains the applicants to PTS acceptable standards in all areas
- ii. The evaluation of the student is only in relation to the standards listed in the PTS
 - a. Although students should be trained to the very highest level possible

Conclusion:

Brief review of the main points

PTS Requirements:

To determine that the applicant exhibits instructional knowledge of the elements of critique and evaluation by describing:

- 1. Critique
 - a. purpose and characteristics of an effective critique.
 - b. methods and ground rules for a critique.

2. Evaluation

- a. characteristics of effective oral questions and what types to avoid.
- b. responses to student questions.
- c. characteristics and development of effective written test.
- d. characteristics and uses of performance tests, specifically, the FAA Practical Test Standards.
- e. collaborative assessment (or learner-centered grading (LCG)).