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# Session 10

Transitioning from Traditional to  
Competency-based Assessments



# Overview

- The shift to competency-based assessments
- Establishing rating scales
- Defining success criteria
- Instructors/Examiners
- Assessing individual vs. crew
- Q&A



# Shift to Competency-based Assessments

- Live performance is **not** always right or wrong
- Notion of errors and error management
  - Perfect performance vs. errors and self-correction
- Excellence vs. perfection...
  - From black & white to a lot of grey





# Shift to Competency-based Assessments

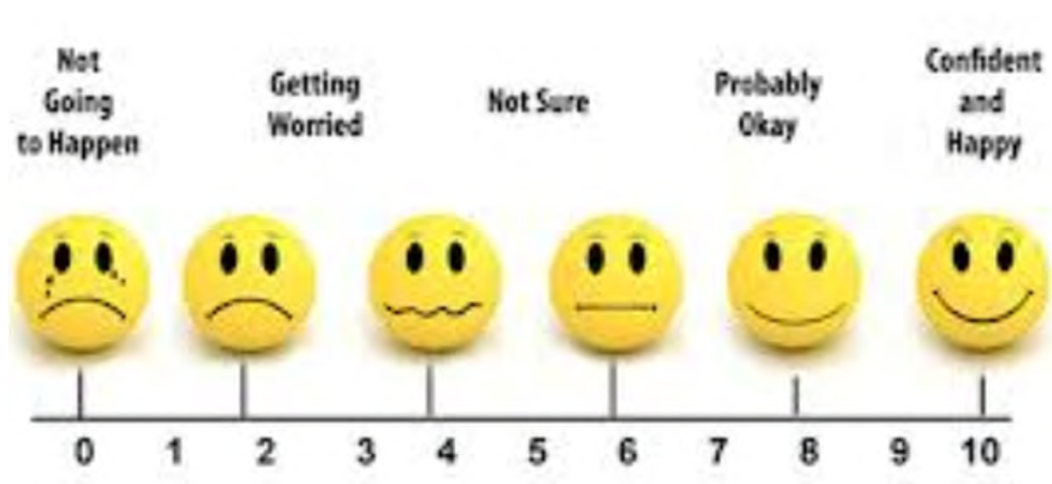
- Competency-based training and assessment is **not** black and white
- Some items can be strictly pass/fail
  - Right or wrong
    - e.g. knowledge-based
- Assessment of skills
  - Not necessarily right or wrong
  - There's a range
    - Competent/not yet competent





# Navigating the Shades of Grey

- Operator must follow 2 steps:
  1. Determine rating scale
  2. Determine success criteria
- Both are specific to each operator





# How to Establish a Rating Scale

- Need to identify rating methodology
  - To grade performance standards against performance criteria
- What to consider?
  - Criticality of actions/inactions
    - including errors
  - Impact on safety of flight
  - Outcomes of the event





# Example of Rating Scale

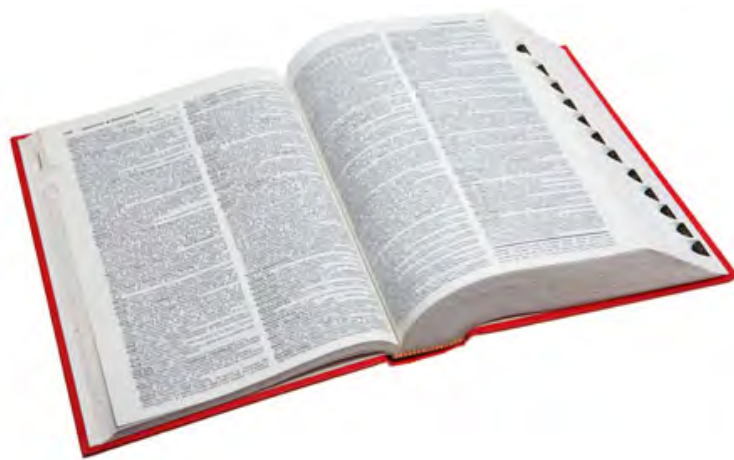
GRADE		CRITERIA
1	Unsatisfactory	Major deviations from the prescribed qualification standards occur that are not recognized or corrected. Individual or crew performance could result in hull loss or loss of life. CRM/DRM skills are not effective.
2	Below Standard	Deviations from the prescribed qualification standards occur that are not recognized or corrected. Individual or crew performance is safe but would be unsatisfactory if diminished by any amount. CRM/DRM skills are not completely effective.
3	Standard with Debrief	Deviations occur from the prescribed qualification standards that are recognized and most corrected. Individual or crew performance meets expectations. CRM/DRM skills are effective.
4	Standard	Minor deviations occur from the prescribed qualification standards that are recognized and corrected in a timely manner. Individual or crew performance meets expectations. CRM/DRM skills are clearly effective.
5	Excellent	Performance remains well within the prescribed qualification standards. Individual or crew performance, management and CRM/DRM skills are exemplary.

*Source: FAA AC 120-54a*



# Defining Terminology

- 4. Satisfactory =
  - **Minor deviations** occur from the prescribed qualification standards that are recognized and corrected in **a timely manner**. Individual or crew performance **meets expectations**. CRM/DRM skills are **clearly effective**.







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# Defining Terminology



- Operator must define:
  - What is considered a “minor deviation”?
  - What is a “timely manner”?
  - How to observe that skills are “clearly effective”?
- Clear guidance needs to be developed for instructors/examiners to use
  - To provide consistency of assessments
- Specific **evidence** (observable actions/behaviors) on trainees’ performance
  - Parameters within definitions
  - Specific to a scenario



# How to Establish Success Criteria

- Based on:
  - Performance standards
  - Skills
    - Can be separate or combined
- Refer to ICAO Doc 10002





# The Role of Instructors/Examiners

- Competency-based training requires an increased number of instructors/examiners
- Lots of pieces are required to execute a scenario
  - Triggers
  - Distracters
  - Training aids
  - etc.
- In scenario-based training:
  - Some may play specific role (e.g. “Capt.”)
  - Others may be in cabin assessing trainees





# Guidance to Instructors/Examiners

- Competency-based training and assessments require training for instructors/examiners
- Instructions on how to facilitate scenario
- To obtain consistency





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# Instructor/Examiner Training

- Training should include:
  - Conducting briefings
  - Executing scenarios
  - Conducting assessments
  - Conducting Debriefings



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# Scenario Briefing

- Set-up the scenario
  - Pre-flight
  - Setting the scene for the flight
- Allow for trainees to familiarize themselves with training environment
  - e.g. cabin simulator





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# Conducting Assessments

- Points to consider
  - How many instructors/examiners assess scenario?
    - Tied to number of trainees active in scenario
  - What can they see?
    - Is their view obstructed in CTD?
  - Limiting what instructor/examiner can assess
    - e.g. number of skills per scenario





# Assessing Individual vs. Crew

- Assessment system is specific to operator
- When deciding to assess individual vs. crew as a whole
  - Consider impact of crew actions/inactions on safety of flight
    - Did crew act incorrectly as unit?
    - Was it a specific individual?
  - Differing levels of participation during scenario
    - From shy to over achiever...







# Scenario Debriefing

- Allows participants to recognize and understand own/crew errors
  - Self-assessment opportunity
  - Learn from experience
  - Errors recognized without instructor/examiner pointing them out
- Provides a forum for correcting minor deviations
  - e.g. review the fire fighting technique if it was an issue
- Provides the bigger picture to participants
  - In dynamic environment, trainees may not know what others were doing at certain times in scenario
  - Trainees get missing pieces





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# Content of Debrief

- What occurred
- How crew performed
  - Including from a CRM perspective (skills)
  - Tackle both positive and negative aspects
- Assessments in a crew context vs. individuals
  - Level of participation by individual trainees
- What would participants would have done differently
- Questions from participants and discussion





# Points to Remember

- The shift to competency-based assessments
  - Excellence vs. Perfection
  - Performance is not pass/fail
- Develop rating scales with clear definitions
  - Evaluating criticality of items
- The need to clearly define success criteria
- Role of Instructors/Examiners
  - Including the importance of debriefing
- Assessing Individual vs. Crew
  - How to differentiate



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