Transitioning Regulatory Frameworks to Support Competency-based Training and Assessments

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Presentation to

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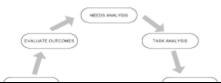Presentation to Next Generation Aviation Professionals Symposium
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Sophocles said, in *The Trachiniae* in 430 BCE, that "Knowledge must come through action; you can have no test which is not fanciful, save by trial." Maybe Sophocles understood the principles that underpin competency-based training.

Competency is defined in *Annex 1* of the *Convention on International Civil Aviation* as "A combination of skills, knowledge and attitudes required to perform a task to the prescribed standard." Competency-based training and assessment is defined in *Procedures for Air Navigation Services (PANS) Training* as "Training and assessment that are characterized by a performance orientation, emphasis on standards of performance and their measurement, and the development of training to the specified

7. The development of material-dependent training.

8. The use of a continuous evaluation process to ensure the effectiveness of training and its relevance to line operations.

Now, this is definitely not traditional training we're talking about. This is the systems approach to training.

Competency

A combination of skills, knowledge and attitudes required to perform a task to the prescribed standard.

Annex 1

Competency-based Training

PANS Training

1. Justification of training need through systematic analysis and identification of indicators for evaluation.

2. Use of job and task analysis to determine performance standards, the conditions under which the job is carried out, the criticality of tasks, and the inventory of skills, knowledge and attitudes.
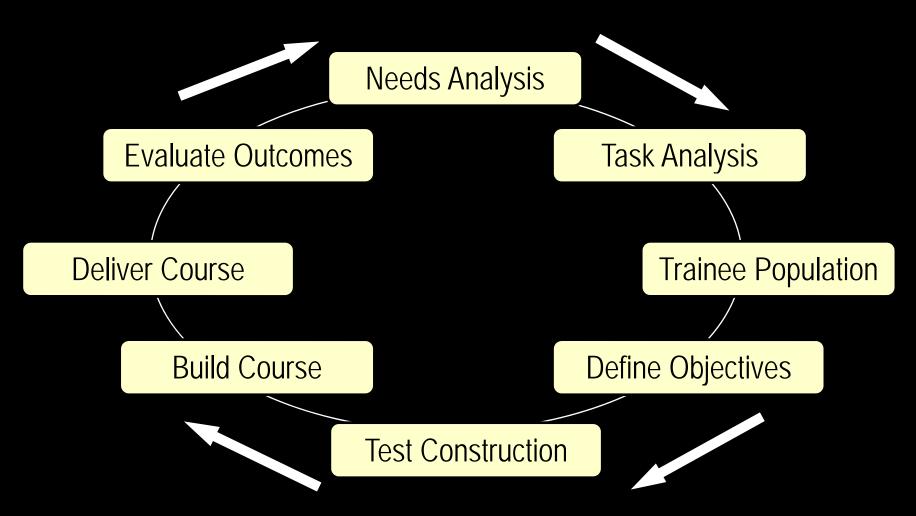
Competency-based Training
PANS Training

3. Identification of characteristics of trainee population

4. Derivation of training objectives from task analysis and their formulation in an observable and measurable fashion.

5. Development of criterion-referenced, valid, reliable and performance-oriented tests.

Competency-based Training

PANS Training

6. Development of curriculum based on adult learning principles, with a view to achieving an optimal path to the attainment of competencies.

7. Development of material-dependent training.

8. Use of a continuous evaluation process to ensure the effectiveness of training its relevance to line operations.

Systems Approach

Needs Analysis

Task Analysis

Evaluate Outcomes

Trainee Population

Deliver Course

Define Objectives

Build Course

Test Construction

CAR 407 ATO

1. Risk profile
2. Risk management plan
3. Quality assurance policies and procedures
4. Organizational training plan
5. Documentation management
6. Communication policies and procedures
7. Strategic/management reviews
8. Instructor competencies

MPL

1. Sponsoring air carrier
2. Screening and selection
3. Language
4. Phases
5. Beta testing
6. Evaluation
7. Takeoffs and landings

MPL

8. Examinations
9. Oversight
10. Flight test
11. Learning management system
12. Bridging
13. MPL advisory board

Thank you!