

LEARNING EFFECT?

COMPETENCE BASED  
TRAINING?

# TECHNICAL TRAINING

## – *“Not just a Tick Mark”*

SIMULATIONS?

● Scenario-Based Training into the  
Maintenance Environment

BY

SØREN SEINDAL AGNER

AEROTEAM Training Solutions

ASSESSMENT OF SKILLS

# Agenda: A Short Introduction

Active Learning

Scenario-Based Training

Assessments

Benefits

- **Understanding the nature and extent of error or risk**
- **Changing the conditions that induce the error**
- **Determining the behaviours that prevent or mitigate error**



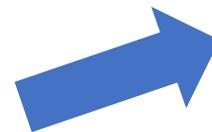
# TRAINING



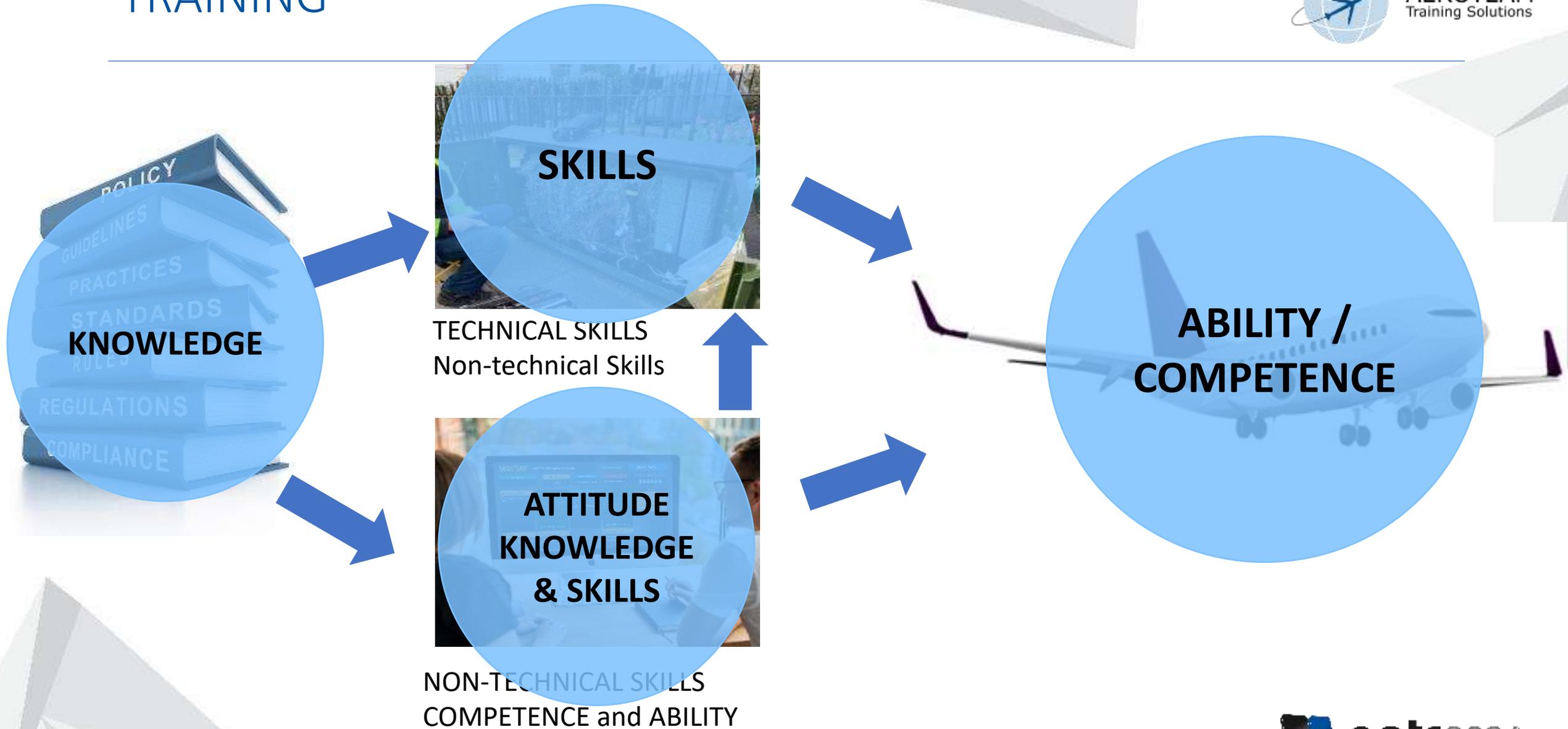
TECHNICAL SKILLS  
Non-technical Skills



NON-TECHNICAL SKILLS  
COMPETENCE and ABILITY



# TRAINING





*“Tell me and I forget,  
teach me and I may  
remember,  
involve me and I learn”*

- Benjamin Franklin

## INTERACTIVE LEARNING of SKILLS

- ✈ Learning by Doing in a Simulated Reality
- ✈ It is **SAFE** and there is **No Inherent Risks**
- ✈ Individual learning of Skills
  - in a dynamic social environment
- ✈ Observation of Behaviours
- ✈ Easy Assessment of Non-Technical Skills



# FACILITATION – HOW DOES IT WORK?



- Realistic Training Scenarios →
- Dilemmas to Create Discussions
- Give a few solutions – All plausible for discussions
- Highlight Possible Consequences
- Define Focus Areas

# STAFF SELECTION



**CERTIFYING  
STAFF**

**BO, 47**

Bo has spent many years working for different companies on line stations at airports abroad. His basic work philosophy is: "If it flew in, it can fly out". He is always the one handing over jobs to the new shift.



**CERTIFYING  
STAFF**

**CHARLOTTE, 38**

Charlotte has been with the company since she was an apprentice. She is loyal and ambitious and rarely makes any mistakes. She recently divorced and is now a single mom.

# DILEMMA

## TASKS

5

### THE PASSENGER SEAT

You are asked to contact a captain who has reported a problem with a cabin seat reclining mechanism. A repair normally takes 25 minutes. The aircraft has been boarded at full capacity. No spare aircraft are available.

This is only a job for certifying staff

#### Option A

You replace the actuator straight away while the passengers wait in the aisle.

#### Option B

You ask the captain to send the passengers back to the terminal while you perform the repair job.

#### Option C

You inform the captain that you will defer the defect in accordance with the Minimum Equipment List.



# CONSEQUENCES

**THE PASSENGER SEAT**

If the employee is Experienced: 

**A**  
Passengers may distract you and create pressure, so you may feel compelled to select a "quick fix".

**STRESS** If the employee has LACK OF AWARENESS, DISTRACTION, COMPLACENCY, LACK OF TEAMWORK, LACK OF COMMUNICATION or LACK OF ASSERTIVENESS:  

**B**  
This puts a lot of operational pressure on both aircraft and ground crew.

**PRESSURE** If the employee has LACK OF TEAMWORK, LACK OF COMMUNICATION or LACK OF ASSERTIVENESS:  

**C**  
Some passengers must be off-loaded.

**PRESSURE** If the employee has LACK OF TEAMWORK, LACK OF COMMUNICATION or LACK OF ASSERTIVENESS:  

5



# BEST PRACTICES

Discuss which of these  
Management tools that will help  
create a more robust SAFETY  
CULTURE.

Pick the 2 you think will help the  
most in your organisation!

How could they be implemented  
in your organisation?

SAFETY SURVEY

TOOLBOX MEETINGS

TECHNICAL TRAINING

MINIMUM STOCK LIST

# ANALOQUE or DIGITAL?



**BONUS: Assessment of Non-technical Skills**

# ASSESSMENTS



# Non-Technical Skills Categories

## TEAMWORK

## LEADERSHIP & MANAGERIAL SKILLS

## *SOCIAL SKILLS*



COMMUNICATION

WORKLOAD  
MANAGEMENT

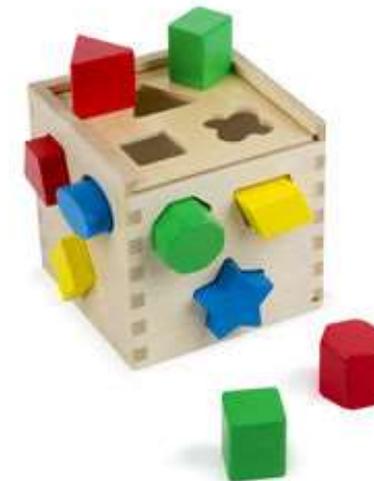
THREAT & ERROR  
MANAGEMENT



## SITUATIONAL AWARENESS

## DECISION MAKING SKILLS

## *COGNITIVE SKILLS*





## ***FORMATIVE ASSESSMENT***

- ***Help students*** identify their strengths and weaknesses and target areas that need work
- ***Help faculty (Instructors)*** recognize where students are struggling and address problems immediately and improve the training

## ***SUMMATIVE ASSESSMENT***

- ***Evaluate student learning*** at the end of an instructional unit by comparing against some standards or benchmark.



# ASSESSMENTS in Practice

- It is behaviours that are observable and not the actual skills!
- Instructor knowledge of the NOTECHs Observable Behavioural markers is essential!
- Definition of effective Human factor behaviour is visible to the crew
  - Helps staff to compare own performance
- You ***MUST*** be ***OBJECTIVE*** in your assessment



# OBJECTIVE versus SUBJECTIVE



OBJECTIVE	SUBJECTIVE
<b>OBJECTIVE</b> information is <b>FACTUAL</b> information based on <b>OBSERVATIONS</b> and <b>MEASUREMENTS</b>	<b>SUBJECTIVE</b> information is anything that is based on <b>PERSONAL OPINIONS, JUDGMENT, FEELINGS,</b> or <b>POINTS of VIEW</b>
VERIFIED with EVIDENCE	CANNOT be PROVED by EVIDENCE
UN-BIASED	BIASED
DOES NOT CHANGE	CHANGES depending on different PEOPLE

# Benefits

- Engaging and motivating training
- Very high Learning Effect
- Assessment of non-technical skills in the classroom
- Value for money
  - High Return of Investment – also for the company



*“Education is NOT the learning of facts,  
It is the training of the mind to THINK!”*

*Albert Einstein*

# WHO WAS THIS GUY?

## Søren Seindal Agner, CEO – AEROTEAM Training Solutions®

- ✈️ Tour Guide, Cabin Crew, Operations
- ✈️ Pilot
  - ✈️ Danish Air Transport (Short 7)
  - ✈️ Scandinavian Airlines (MD 80)
- ✈️ Ground Instructor – ATPL
- ✈️ CRM and Human Factors Trainer / Examiner
- ✈️ Multi Crew Course Instructor (MCCI)
- ✈️ Training Manager EASA Part 147
- ✈️ Member of The Danish Flight Safety Council since 2010
  - ✈️ Human Factors in Civil Aviation
- ✈️ INVENTOR of the MAYDAY Training Concept



# PLEASE REMEMBER

**ESSENTIALS OF RISK MANAGEMENT:**

1. DON'T DO ANYTHING WRONG TODAY.
2. DON'T DO ANYTHING WRONG TOMORROW.
3. REPEAT.



Complex Discovery

GLASBERGEN

© Randy Glasbergen / glasbergen.com



**Søren Seindal Agner**

*CEO*

*Training Manager Part 147*  
*AEROTEAM Training Solutions®*

P: +45 7950 8085

C: +45 2032 3676

ssa@aeroteam.dk

**WWW.AEROTEAM.DK**

**THANK YOU FOR YOUR ATTENTION**