

Aug 14th, 9:00 AM - 10:15 AM

The Evidence-Based Approach to Learning

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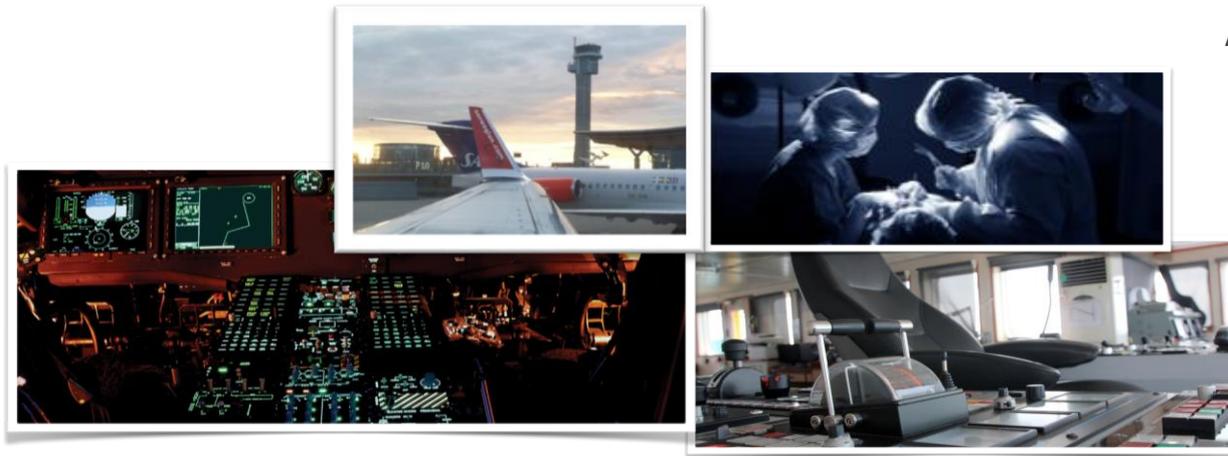
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NTAS

August 14th 2017



“The evidence-based approach to learning”

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Hucon Global and Partners

Consultants with extensive experience from aviation and other risk-sensitive industries, and a team of software programmers, collaborating with:



Norwegian National Advisory Unit on
Advanced Laparoscopic Surgery



Evidence-based training

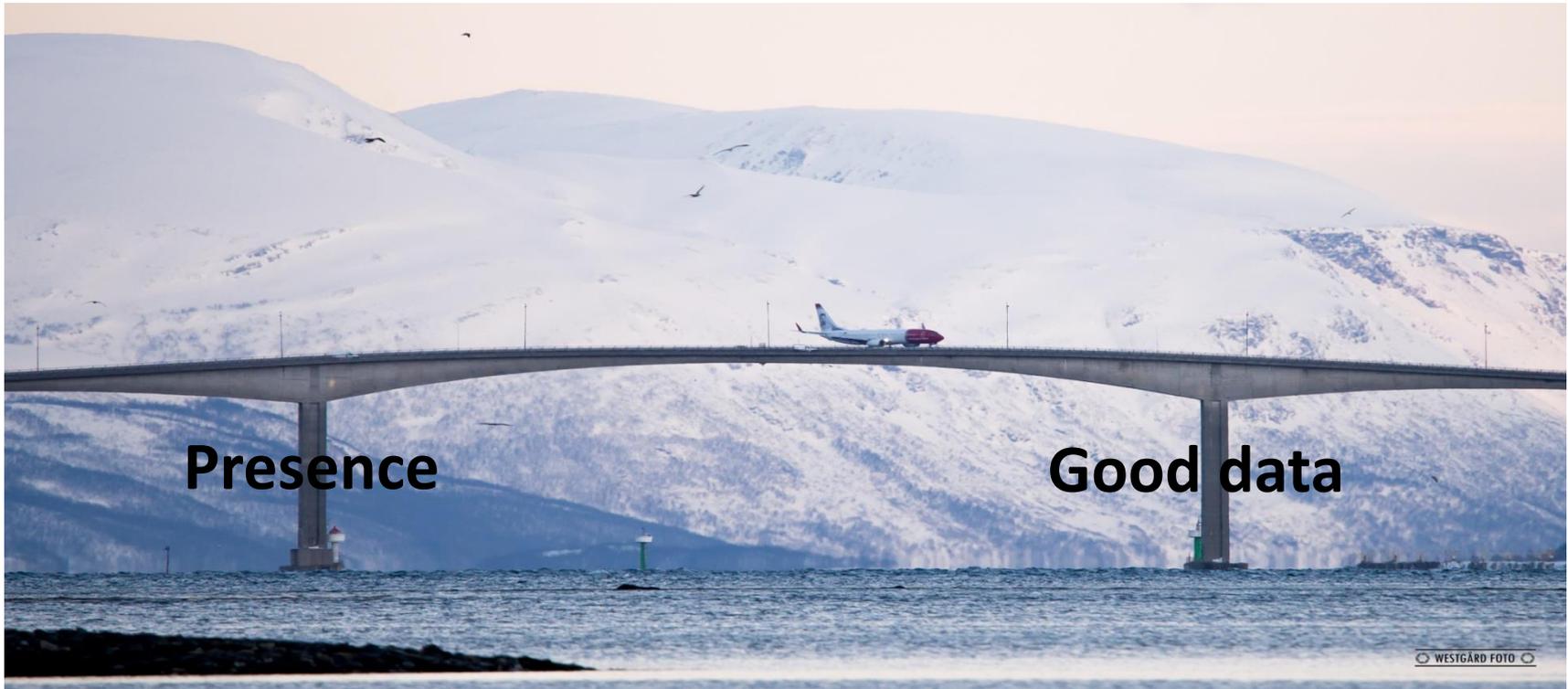


ICAO Doc 9995A, 2013

“EBT Guidance Materiel”, EASA 2015

- A wide range of work tasks, maneuvers, operative contexts, - and cultural factors
- A set of competencies & a number of behavioral indicators
- Usually one instructor to manage it all...

A learning environment



Not manipulated photo, with permission from Hjalmar Westgård

In training and checks



A task is coming up for the crew...

Is it :

Being noticed as expected?

“INPUT”

Understood and processed as expected?

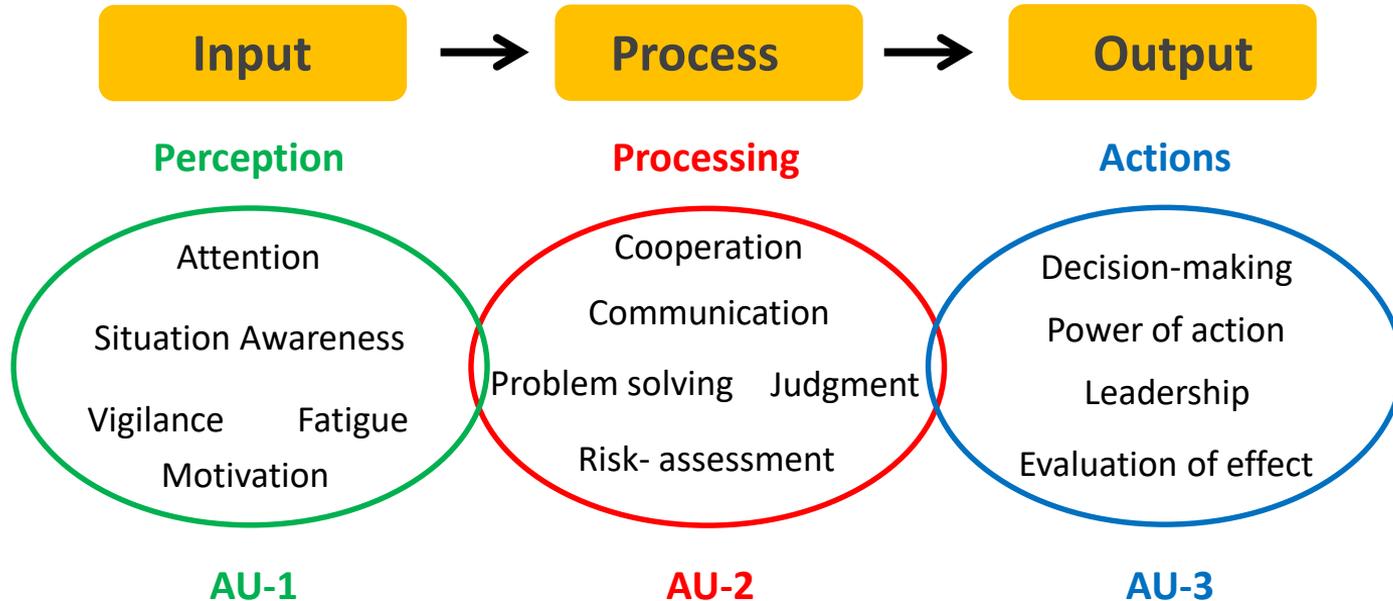
“PROCESS”

Completed with appropriate actions?

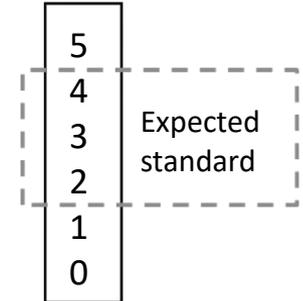
“OUTPUT”

AU's and human factors

Three Assessment Units representing different human factor areas:



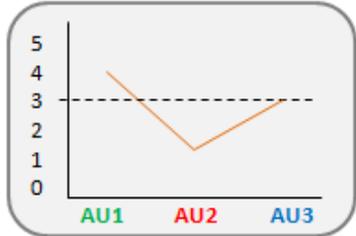
3 Rating scales with generic indicator descriptions:



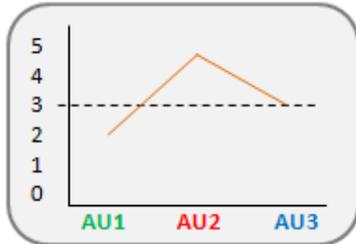
Performance profile examples

Performance:

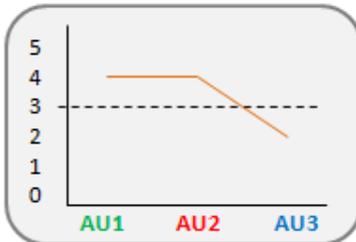
AU-1: Perceiving and recognizing the Event quickly
AU-2: Processing & teamwork clearly below the standard
AU-3: Output and actions according to standards



AU-1: Perceiving and recognizing the Event slowly
AU-2: Processing & teamwork clearly above the standard
AU-3: Output and actions according to standards



AU-1: Perceiving and recognizing the Event quickly
AU-2: Processing & teamwork above the standard
AU-3: Output and actions below the standards



Explore:

Communication skills?
Workload management?

Attention? Fatigue? A high workload context?

Good activity, but limitations in knowledge, judgment or perhaps poor procedures?

Different questions & shared goals

The trainee

How can I excel and do better?

I know I missed something, but I really don't know why...



The trainers

How can I make my trainees great professionals?

How can I excel as a trainer and facilitator?

The training management

How successful are we in our training?

Where do we have the training needs?

How can we document our training efforts?



Evidence-based learning

- Focusing on the **operative** development
- Using **generic** assessment variables and behavior indicators
- Addressing observed **event-based** performance
- Using the instructor as **an expert observer**, - with time to observe...
- Using **algorithms** to create the profiles on Competencies
- Debriefing with direct ties to **human factors** and behavior



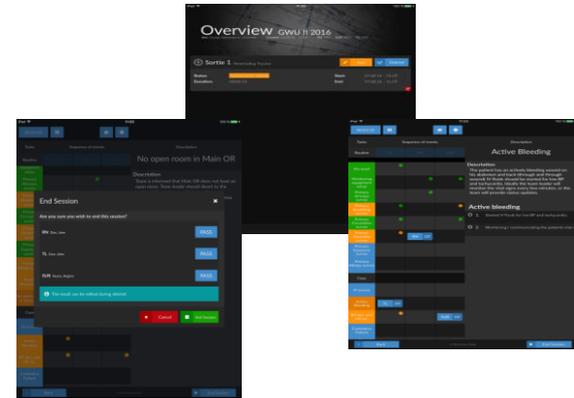
A digital assessment platform



- IAP is a generic tool, context based, and applicable for a wide range of operative settings
- Collects data from performance, not abstract competencies

An innovative approach to:

- Debriefing and learning
- Standardizing training & evaluation practices
- Documenting training and performance levels



Long live the instructors

Thank you for your attention



For more information please contact:

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