Opportunities and challenges in offshore simulation and training

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Agenda

An efficient training environment

Current situation

Where are we headed?
An efficient training environment

THE FOUR ELEMENTS

• Simulator hardware
• Mathematical model
• Instructors
• Training methods
An efficient training environment

SIMULATOR HARDWARE

• Flexible
• Easy to integrate
• Realistic

= no usage of unnecessary mental resources
An efficient training environment

THE MATHEMATICAL MODEL

• Accurate
  • Integration of valid data

• Different than the real world
  = negative training
An efficient training environment

THE INSTRUCTOR

• Teach, guide and motivate
• Experienced in similar operations
• Observe and support

= “forget” the virtual environment
An efficient training environment

**TRAINING METHODS**

- Participant logical approach
- Pedagogical best practice
- Debriefing sessions with reflection

= High learning transfer
Current situation

Real vs. virtual training
1 year vs. 1 week

• Should we stop onboard training?
  • NO! Social competences can not be accelerated

• Should we stop virtual training?
  • NO! Keeps operations safe, efficient and profitable
TRAINING SITUATION

• Personality
  • Social ability and learning approach
  • Behavioural patterns during stressful situations (Flight, Fight, Freeze)
  • Safety profile

• Ability level

= an unique profil used proactively in training sessions
Where are we headed?

**LIVE VIRTUAL CONSTRUCTIVE TRAINING**

- The actual vessel in a virtual environment
- Interaction with other vessels or rigs without them being there
- Lack of aero- & hydrodynamic interactions
- No adjustment of the environment
- No possibility of training critical situations

= At the moment too expensive and incompatible with offshore simulation and training
“We will see simulator and domain connectivity evolve. We will see more gaming like environments evolve if we stay true to the underlying physics.”