# **Building Resilient Training Systems**for Cabin Crew

(Lessons Learned Post the Covid-19 20/21 Lockdowns)



## Training in a World of Covid-19

#### Lessons learned, innovation and resilience

- During the Covid-19 pandemic, most universities, colleges, professional training schools and even secondary and primary schools were closed for much of 2020 and the first quarter of 2021, and nearly all teaching moved online
- Evaluation studies on the impact of this E-learning on students and teachers provide lessons learned which will be of value for the aviation industry. This will also be of interest to regulators in their oversight of training in the aviation sector



## The online Opportunities

#### Questions to be answered are:

- What can be trained online and where are the limitations?
- Who decides which mandatory training-elements may be delivered online?
- How best to determine the content and set up of professional training for Cabin Crew?
- What are the implications for Cabin Crew of more online and less classroom training?
- What do Regulators need to do to ensure that online training meets the requirements?
- How best to keep pace with, and incorporate the latest developments and insights to continually optimise online learning for the students / young professionals?
- What new skills do oline trainers and regulators need?



### At the start of the Pandemic

#### The world was not prepared

- -> travel restrictions
- -> no revenues for the aviation service providers
- -> cost reductions
- -> training stopped
- -> training facilities were closed
- -> training programmes were reduced or even suspended
- -> aviation regulators issued certain exemptions
- -> but what next?



## As the lockdowns and restrictions persisted

#### The world starts to develop new strategies

- -> Mandatory training requirements remained in place, but regulators allowed certain aspects of the training to be implemented in different ways:
- -> Revision of training programmes less / compact / and focus on on-line training
- -> social distancing -> more remote / online training
- -> cost reduction -> more remote / online training
- -> re-orientation of practical training -> Virtual Reality (VR) environment?
- -> expertise developed on remote / online training?



## Remote / Online training

#### What do we mean – defining and understanding the concepts

- Remote education: a broad term encompassing any learning that happens outside of the classroom, with the teacher not present in the same location as the pupils
- Digital remote education: often known as online learning, this is remote learning delivered through digital technologies
- Blended learning: a mix of face-to-face and remote methods. An example would be the 'flipped classroom', where main input happens remotely (for example through video), while practice and tutoring happen in class
- Synchronous education: this is live; (asynchronous education is when the material is prepared by the teacher and accessed by the pupil at a later date.)



## Remote Delivery

#### **Covid Secure**

Trainers have been transposing as much as possible into Remote / Online learning systems to ensure that the mandatory and other required training needs of their trainees are met and at the same to create for a secure training environment for the trainees and the the trainers



## Remote/online training

#### Advantages:

- cost-effectiveness (no need for classroom provision, reduced demands on instructors' time, elimination of travel costs etc.),
- flexibility and freedom to learn at one's own pace
- Better suited to "nomadic populations" such as flight and cabin crew members
- perfect to cover the all the theoretical items (review of procedures, legal requirements, operational rules, etc)
- interactivity (e-leaning can be delivered in many different ways, from pure theory, to question/answer formats, through to "games"; the aim is to anchor knowledge).



## Remote/online training

#### Challenges:

- potential of demotivation and boredom of trainees, particularly where training may be somewhat repetitive
- need for interaction with a human person (need exacerbated by the restrictions imposed to control the pandemic)
- difficulties involved in proving who is attending the e-learning,
- cost-effectiveness at the expense of flight safety (the risk of being drawn to the thinking that all courses should be delivered on-line, and failing to recognise some topics that are better suited to the classroom)
- ensuring the right balance between remote and in-class teaching
- resistance from the Regulators



#### Issues to consider in remote/online training programmes

- cultural or generational aspects
- learning objectives and outcomes
- training environment(s)
- The demographics of the students
- The timing and urgency of the training
- Is the training initial or refresher training
- interaction between students is required, in practical work required
- link to a records management system and / or training plan.



## Re-thinking

#### **Back to Basics**

- an increased need for "back to basics" or refresher training as this period has resulted in the degradation of skills and knowledge. Fundamentals of safety need to be reinforced
- a need for new procedures to reflect changing operational requirements (e.g. special flights such as transporting cargo in the cabin, evacuating a significant number of patients on the same aircraft etc.)



## Regulatory CC training requirements

#### Who is responsible for what?

 At EU/EASA level the training requirements are developed by EASA in cooperation with various stakeholders (Operators / NAAs / representatives of Cabin Crew Associations)

#### Safety is paramount for all but ......

- Operators look for ...... regulatory requirements
- Cabin Crew representatives look for ..... in the regulatory requirements
- NAAs look for ...... regulatory requirements
- EU/EASA look for ..... regulatory requirements



## Approval / Oversight

#### The Regulatory Aspects

- Within the EU/EASA regulatory framework the national competent authority is responsible for issuing approvals to, and oversight of the training organisation. This requires checks to ensure the training syllabi and set-up meet the formal requirements
- Who in general does this job within a CAA -> Cabin Crew inspectors
- What is the average background / skills / requirements of Cabin Crew Inspectors?



### Example core elements CC-Job Description

#### **Cabin Crew Inspector**

- Experience of working in a regulatory environment and of the development, implementation and auditing of requirements and procedures
- Preferably, experience of safety management and its oversight, preferably via a state safety programme
- Professional higher education or equivalent experience
- Training on one of the aircraft types registered in the State, initial CRM training completed
- Additional training in the fields of group management, group dynamics and personal awareness
- Adequate knowledge of air operations requirements
- Adequate knowledge of human performance and limitations (HPL)



## Example of core elements Job Description

However.....

- No mandatory requirements
  - -> for qualifications related to teach/train professionals
  - -> or for qualifications with regard to training methods / training systems
  - -> or x years of experience in the training of professionals
  - -> or training in the preparation and delivery of remote/online learning



## A different perspective

Improving our capabilities

What can the aviation world learn from other sectors who were in the same position?



# UK Government / Educational Endowment Foundation, Quality Assurance Agency

- To improve learning, new methods, like remote / online learning technology must be used in a way that is informed by effective pedagogy
- The question of how to use technology to improve learning is not distinct from the question of how to teach effectively, or of how young professionals learn
- Consider how new methods, including remote/on-line learning will improve teaching AND learning before introducing it
- Teachers / Trainers need to learn how to use the new methods effectively



#### UK Gov / EEF /QAA / key points trainers/teachers

- a closer focus on verbal explanations and exposition -> concept in bitesize segments
- shortening the length of lessons to aid concentration
- using a variety of different ways of presenting information (pictures, video's etc.)
- combing words and visuals such as graphics and images to present ideas and concepts
- ensuring time for students to practise what they have learned-> independent work or discussion amongst learners
- recognise that feedback and assessment are still as important as in classroom



## UK Gov./ EEF, QA A

#### **Further Points for Consideration**

- In remote/online learning 'assessment of the participants' is a key area that needs careful management
- One of the recommendations was to put systems in place to regularly assess pupils' progress through the curriculum (chain approach)
- When it comes to remote education, protecting the safety/privacy of students, particularly in online environments, is paramount
- It is therefore necessary to ensure that all relevant staff have been trained and understand the policies and the standards of conduct expected of them (code of integrity)



### The Netherlands

#### On-line training on a large scale

- At the Dutch University of Groningen they use Massive Open Online Courses for the University of Groningen's Faculty of Economics on 'Human Complexity and Uncertainty' -> 75.000 users worldwide -> in the top-ten of FutureLearn's global university online distribution platform
- Amsterdam University of applied sciences (young professionals) -> on-line course in applied economics -> 4.500 students
- Medical world -> online learning -> internationally accredited post-graduate training courses



## Requirements

#### Management and oversight of online learning

- Regulators trained in online training / teaching and learning practice,
- Regulators receptive and responsive to change (some good practice already seen in this respect)
- Online training courses monitoring progress assessment of students depends wholly on a secure and highly reliable support system
- The online provision should be supported by reputable teachers and companies with a proven track record of continuous improvement and development as well as research
- Quality of instructors
- Fraud-proof examination and authentication of each student's identity
- Training should be flexible -> tailor to individual organisations and their employees



## Open the Gate

#### Time to change

- Aviation sector (operators / training organisations) should also link up with non-aviation training organisations who also train starting professionals and also had to find solutions for similar problems that the aviation sector faced.
- Whatever training methods are used;
  - -> trainers need to be are trained by qualified trainers
  - -> trainers are supported in their own Continued Professional Development
  - -> trainers and their performance should be monitored



## Open the Gate

#### Time to change

- We need to ensure we have the same understanding of the various remote learning platforms – agree the taxonomy
- The industry is often ahead the regulators, during Covid some of the regulators were pro-active. More still needs to be done -> training standards ->educational qualification of CC-inspectors



## Open the Gate

#### Time to learn, reflect and adopt

- We need to invest in the training instructors to ensure they have the right skills and that the teaching and learning is effective whatever delivery platform is used
- The Aviation sector- regulators air service providers and training organisations, should look at, and learn from their lessons learned, to identify and adopt good practice



## Making the most of this opportunity

## Suggestion for a next step to bring remote/online learning in aviation to a next level

- Aviation Authorities should support inspecting staff involved in e.g., issuing approvals for, and overseeing training organisations, in acquiring and developing their knowledge and understanding of education/training methods/methodology/technologies as well as in new developments in those areas
- Aviation Authorities (European/National) could organise a 'lessons-learned' conference in cooperation with universities, educational councils, and other industries to formulate a solid framework to use as guidance in their effort to provide access to cost-effective training that will develop and motivate staff and help them to keep aviation operating safely



## Thank you for your attention

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