

EUROCONTROL DOCUMENTATION AND METHODOLOGICAL ELEMENTS, RELATING TO PROFESSIONAL COMMUNICATIVE COMPETENCE DEVELOPMENT

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This article describes Eurocontrol methodology of professional communicative competence development. The four main professional training documents, such as syllabus, training plan, training event plan and assessment plan are defined. The 5 main methodological blocks of training tools were covered too. The first block – training events – consists of 9 types of training events and the-four parameters, which are necessary for their proper choice, the second one-training methods – covers 23 training methods, used during different professional training stages, the third block – describes 10 training media, the fourth – 3 learning rates and the last block – 2 modes of delivery.

Keywords: professional communicative competence, syllabus, training plan, training event plan, assessment plan, training documents, training events, training methods, training media, learning rate, mode of delivery

Eurocontrol is an intergovernmental organization which includes 41 member-States and created to build, together with other partners, a Single European Sky, providing the air traffic management functioning, required for the twenty-first century demands and beyond [5].

The forming and development of air traffic controllers professional competence is the key element of solving the general problem of civil aviation (especially air traffic management) – flights safety. As for professional competence itself – it is a complex element, which contains a lot of characteristics, which air traffic controller has to possess in order to be a professional. One of these characteristics is professional communicative competence, which defines the quality of aviation radiotelephony.

Air traffic controllers professional (foreign language) communicative competence – is a complex of professional foreign language knowledge, skills and habits and the ability of their proper usage for the working interaction during radiotelephony with the crews of aircraft, which fly on international routes, in any conditions of professional interaction and activity.

In order to make professional training as effective as it possible, especially relating to professional (foreign language) communicative competence development, Eurocontrol proposes to use the following set of professional training documents and methodological tools, which have to be OBLIGATORY implemented in all member-States (in our case – in Ukraine). We'll describe them in this article.

Professional training documentation

Syllabus

A syllabus is a list of training objectives classified by subjects, topics and sub-topics

showing the training necessary to fill the training gap and achieve the course aim.

The syllabus does not indicate times, training techniques or the order in which the training objective should be achieved.

Within the EUROCONTROL documentation structure, a syllabus may be presented as a EUROCONTROL Specification, EUROCONTROL [2; 3].

Training Plan

A training plan is a syllabus with additional information. The training plan details for each subject, topic and objective the training requirements (type of training event, educational material needed, method and mode of delivery).

It also includes the order of delivery of the training events and the time scale for achievement of the stated plan.

A training plan details the performance objectives and/or assessments required at predetermined intervals during the course [1; 2].

Training Event Plan

The training event plan is the document used by the instructor when preparing and delivering training events. It contains the following information:

- objectives to be covered;
- a timeline;
- training method/s to be used;
- the types of materials and/or equipment needed;
- the knowledge and skills prerequisites (if any);
- whether the delivery of the event is to a group or individuals [2].

Assessment Plan

An assessment plan identifies for each subject, topic and objective how the assessment will be performed. In order to make the process more efficient, sets of objectives are linked to

a performance objective. The assessment is then based on this performance objective.

The form of the assessment (oral, written, practical exam, continuous assessment) could also be repeated in the training event plan [2; 4].

Methodological tools

Training events

Training objectives indicate what is expected from the learner. How to train a learner to achieve the objectives is indicated in the training plans through the choice of training events.

A training event is the delivery of training to achieve an objective or objectives that have been grouped together to form a pedagogically cohesive unit. Each training event has a main type assigned to it. The training event is more accurately described by reference to the training method/s, media, learning rate and mode of delivery [2].

The following are definitions of nine training events, used in the training plans:

Case (Case)

Training event based on the case study or group work methods in which a real or fictional situation or series of events are presented to learners for their analysis and may include proposal of possible solutions. Most of the time it is a group session with the support of texts, visual aids and multimedia computer; sometimes it may be delivered as individualized training [2].

Computer/Web-based Training (CWBT)

The provision of knowledge and skills that makes use of a computer and/or Internet technology. CWBT includes methods like interactive training, exercises, lessons, multimedia or virtual classrooms which may be delivered separately or combined ("blended"). Instructor guidance may be part of CWBT [2].

Lecture (Lec)

A straight talk or exposition without group participation other than questions, usually at the conclusion.

Lesson (Les)

Interactive talk or exposition which includes the participation of learners during the event. The instructor is able to ascertain whether material is being assimilated.

Skill Practice (Pract)

Practical training that combines the learned theory with the skills or part thereof, that are necessary for the operation tasks.

There are four methods of Skill Practice: Skill Acquisition (SA), Part-Task Practice (PTP), Hands On (HO) and Supervised Practices (Sup Pract) [2].

Simulation (Sim)

Practical training that combines knowledge, skills and attitudes by means of repre-

sentation of air traffic responding to any learner action as real air traffic. It always includes briefing, tutoring and debriefing.

There are three methods of Simulation: Individual Simulation (ISim), Team Simulation (TSim) and Group Simulation (GSim).

Briefing (Brief)

The introduction to, or review and discussion of the outcome of, the practical training.

There are four methods of briefing: Briefing, Debriefing, Structured Briefing and Structured Debriefing [1].

Visit (Vis)

A visit to a professional environment (typically operational environment). The visit may include the assignment of observational tasks, discussions and/or practical activities.

Self study (Slfs)

Period/s of time that are built-in to a course that will allow learners to acquire specific knowledge through their own efforts [2].

The Four Parameters of the Training Events

The methodology to design the training strategy is based on the answers following four questions:

- What is the method used by the instructor to teach? (**training method**).
- Which media is used to carry the training message? (**media**).
- Is the learning rate free or restricted or real? (**learning rate**).
- Is the training individual or in a group? (**mode of delivery**) [2].

Training methods

The training method characterizes the correlation between the matter, the learner and the instructor [1].

The following are the definitions of the 23 training methods used in the Common Core Content training plans:

Lecture (Lec)

A straight talk or exposition without group participation other than questions, usually at the conclusion [1].

Lesson/Demonstration (Les)

Interactive talk or exposition, which includes the participation of learners during the event.

Case Study (Case)

A real or fictional situation or series of events are presented to learners for their analysis and consideration of possible solutions or problems identified. Their findings in a real situation can be compared with what actually occurred.

Computer-based Practical Exercise (CBPE)

The exercise is presented by an instructor using visual aids and deciding, from learners' answers when and how to move on [2].

Exercise (Ex)

The provision and consolidation of knowledge and skills through the performance of defined task(s).

Facilitation (Facil)

Methods/techniques used in an interactive teaching environment to help learners achieve a desired result.

Group Work (GrW)

Discussion within the group of learners to find the solutions for a given problem with no or minimal support by instructor [2].

Hands On (HO)

Training on real equipment that is not in operation. Emulation on multimedia computer is sometimes sufficient. Text is used as additional data (instructions, operating manual, questionnaire, etc.).

Interactive Training (Inter)

The provision of knowledge and skill by means of a computer with numerous interactions, learner response analysis and allowing, when appropriate, free individual rhythm of learning (self-paced manner) [2].

Supervised Practices (Sup Pract)

Manipulation of equipment where the instructor provides the necessary feedback.

Part-Task Practice (PTP)

Practical training which allows restricted or real-time practice of a part of the skills that are necessary for the operational task in a realistic environment (PTT or Sim) [2].

Individual Simulation (ISim)

Real-time full-task simulation involving one single learner.

Team Simulation (TSim)

Real-time full-task simulation involving an individualised cell made of several learners. A team consists of two or more learners who are required to work together on related or interacting tasks.

Group Simulation (GSim)

Real-time full-task simulation involving several individual or team simulations simultaneously.

Briefing (Brief)

An introduction to a practical training exercise where the objectives and any relevant issues are communicated to the learner [2].

Debriefing (Debrief)

A review and discussion of the outcome of practical training based on a formative and/or summative assessment.

Debriefing should include the observed strengths and weaknesses of the learner and should be based upon the aims of the session and the notes recorded by the instructor.

Structured Briefing (StBf)

A planned group introduction for a simulation (or a series of simulations) stating the objectives of the exercise, the simulated operational procedures, the operation of the simulator, the expected role of each team member, including the instructor, and possibly demonstrations of simulation exercises [1].

Structured Debriefing (StDbf)

A planned group review and discussion of the outcome of a simulation (or a series of simulations). The discussion is centred on the "lessons learnt" [2].

Virtual Classroom (VC)

Distance training of a group of persons connected in synchronous mode and facilitated or lectured by an instructor.

Role-Play (Role)

Learners act out a working model of some real-world human situation in interacting group. They are provided with background data and roles to play together with constraints which may change as the play proceeds [2].

Skill Acquisition (SA)

Practical training, which allows self-paced, restricted or real-time practice of a part of the skills necessary for the operational task in a possibly non-realistic environment (e.g. 2D aerodrome).

Self study (SlfS)

Learners acquire specific knowledge through their own efforts.

Self Test (SlfT)

Formative Self-Assessments used to strengthen memory recall by practice, to correct misconceptions and to promote confidence in learner's knowledge [2].

Training media

The training media are the physical means by which an instructor communicates a message. One type of media can include different supporting materials. The examples of support material given in the descriptions below, are specific to the AT CO training environment, nonetheless the examples provided should not be considered as exhaustive [2].

Real Equipment (RE)

Equipment such as CWP, NAVAIDs, avionics or documents such as charts or maps, either used in operational conditions (On-the-Job Training) or in non operational conditions (shadowing or demonstration).

High-Fidelity Simulator (Hi Fi Sim)

A full-size replica of Controller Working Position (CWP) including all equipment and applications necessary to represent full tasks of the different Air Traffic Services functions

and their environment. In the case of an aerodrome control simulator it includes an out-of-the-tower view [2].

Simulator (Sim)

A device that presents to the learner the important features of the real situation and reproduces the operational conditions under which the learner can practice real-time tasks directly.

Part-Task Trainer (PTT)

A device to provide training for specific and selected operational tasks without requiring the learner to practice all of the tasks which are normally associated in a fully operational environment.

Multimedia Computer (MMC)

A (networked or stand-alone) multimedia computer or workstation dedicated to one learner or to a team.

Video (Vid)

Aids such as camera, camcorder, recorder, player, TV, monitor, projector and screen used for the generation, storage and reproduction of visual animated images and associated sounds (video, films, DVD and other). In particular, it enables to record learners' performance and to replay it [2].

Visual Aids (Vsl)

Aids such as projectors, monitors or screens used to display presentations, animations, slides, mock-up, models and video clips, possibly associated to loud speakers or headset for the sound [2].

Audio Aids (Aud)

Aids to communication such as microphones, loudspeakers or headsets used to listen, record and playback audio clips.

Text (Txt)

Written training material in either printed or electronic format [2].

Multimedia or sound Laboratory (Lab)

A set of individual learner positions for the use of part task, language or radiotelephony training which support self-paced learning as well as interactive instructor support and monitoring.

Learning rate

Self-paced Learning (Self)

Learning directed by the individual in order to meet learning objectives. In self-paced learning the learner controls the pace of the learning process [2].

Time-restricted Learning (Rstd)

A learning/teaching system whereby the course developer or instructor controls the pace at which the learner has to work.

Real Time (Real)

A learning/teaching system whereby the pace at which the learner has to work is the same as in real operation.

Mode of delivery

Individualised Training (I)

Features of the individualised training are the provision of possibly different stimuli to each learner, the separated analysis of their response and the provision of consequent new stimuli independent of the answers of other learners [2].

Group Training (G)

All the participants are presented the same learning material under the same conditions.

As a conclusion we would like to mention that air traffic controllers professional training is not limited by only this set of elements, professionally specialized. Eurocontrol demands that all new elements have to be in harmony with all mentioned above.

References

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