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BASIC PRINCIPLES OF TEACHING AVIATION ENGLISH TO PILOTS AND AIR TRAFFIC CONTROLLERS

The article outlines basic principles of teaching Aviation English to pilots and air traffic controllers. Content-based Aviation English curricula for ab-initio students and active operational professionals in aviation are analyzed.

The ICAO Language Proficiency Requirements apply to achieving and maintaining proficiency in all languages used in radiotelephony communications. However, English is the language most widely used by the global aviation community, and also the one language which is obligatory to provide. Thus, improving levels of spoken English is the aviation community's main focus currently.

The "Air-Ground Communication Safety Study: Causes and Recommendations", made by Eurocontrol, indicates that 64 % of all instances of communication problems have had some air safety consequences. These consequences include: prolonged loss of communication; altitude deviation; loss of separation; wrong aircraft provided clearance, instruction issued to wrong aircraft; heading / track deviation; runway transgressions, and some others [1].

Language training in aviation has specific objectives; the content, criteria of proficiency, conditions of use and professional and personal stakes distinguish the instruction goals from the teaching of language for other areas of human activity. These specific objectives are:

– The language is designed to ensure unambiguous pilot-controller communication;

– The language used employs a very specific set of vocabulary, expressions and functions;

– Operational efficiency, rather than linguistic correctness, is the ultimate criterion by which proficiency is assessed;

– Communication is predominantly oral and most often with no visual contact;

– The question of communication may not only impact the safety of the travelling public, but also potentially have considerable economic repercussions on all individuals involved in the aviation industry, directly through testing and training costs and indirectly by its effect on staffing [4].

The introduction of the ICAO Language Proficiency Requirements in 2003 and the subsequent steps to assist their implementation have significantly altered the environment in which aviation English training is carried out. Previously, the training was an optional and irregular activity on the periphery of professional training, entirely dependent on available funds. Now, aviation English training is in

the process of becoming a subject driven by specific objectives: attaining and maintaining the language proficiency defined as ICAO Operational Level 4.

The ICAO Language Proficiency Requirements (Annex 1 'Holistic descriptors' [3], and Doc 9835 [5]) address language used in radio communications. But 'Aviation English' in its broadest sense covers language use in a wide variety of aviation-related contexts, from maintenance to cabin crew, customs to security, dispatchers to pilots and ATCOs. Therefore Cir 323, 'Guidelines for Aviation English Training Programmes' (2009) states the following provisions for Aviation English training: "Aviation English training must adopt an essentially communicative approach to language learning with the main focus on speaking, listening and interactive skills. Although grammar, syntax, vocabulary and reading underlie oral communications, the primary objective of Aviation English training is voice-only communication; …[and, it] must contain activities that are designed to address all six language skill areas specified in the ICAO Rating Scale and holistic descriptors: pronunciation, structure, vocabulary, fluency, comprehension and interactions" [4].

Experts in Aviation English training (H. Emery, J. Kennedy, O. Moskovkina) differentiate principles of language teaching for aviation:

– Appropriate content-based language training is a more efficient, motivating and cost-effective form of Aviation English training;

– The content used for language acquisition should be relevant to the population being trained;

– Training should have a communicative focus (communicative approach to language learning). The goal is successful communication, rather than pure grammatical correctness. The training should use learner-centered classrooms rather than teacher-centered; much student conversation practice and relatively less teacher lecture; minimal error correction of errors which do not affect comprehension, and; materials which attract learners' attention.

Pilots and ATCOs are the two integral partners in the radiotelephonic exchange. However, the partners differ in their concerns, areas of specialized knowledge, and the variety of situations to which they are directly exposed. Thus, it is preferable to use different courseware for each group. It is more appropriate for Aviation English training designed for pilots to explore a wider range of operational situations, communication registers and interlocutors because pilots are also required to interact with crew members and describe in-flight conditions in greater detail. On the other hand, the language used in airspace management and interaction with emergency services could be more developed when training controllers.

More important than the distinction between pilots and controllers as language learners is the distinction between active operational professionals and *ab initio* cadets or ATC trainees. In the case of *ab initio* students, there will be a great deal of technical or operational subject matter that cannot be taken for granted, while the resolution of an in-flight emergency or a navaid malfunction are topics that are relevant and motivating for experienced professionals.

A special content-based Aviation English curriculum for *ab initio* students who do not meet ICAO Operational Level 4 language proficiency should be designed. It is generally accepted that the closer the content matter of a course is to

the actual situations, activities, functions and subjects encountered in the students' professional life, the more effective and motivating this courseware will be. Professional relevance is a combination of two factors: content and function. Content may include subjects such as approach, delays, bad weather conditions, sick passengers, a hydraulic failure and runway incursions. No less relevant for aviation professionals are the specific language functions required to deal with these situations, such as describing, requesting, clarifying and confirming.

By using materials and other resources commonly used during the flight training process, qualified language staff can, with input from the flight training department, develop a content-based Aviation English program, which incorporates standard radiotelephony practice, but includes all other linguistic aspects of flight training as well.

It is effective to use computer facilities for students' listening and viewing aviation CDs, DVDs and other computer based training. These materials can also function to enhance students listening comprehension and vocabulary skills in accordance with two of the ICAO holistic descriptors. By using a blended learning approach, with computer based training and classroom activities that are designed based on language functions, events, domains and tasks association with flight training, students may make good progress in comprehension and communication.

When designing a curriculum for Aviation English for *ab initio* training it is important to include activities from many different flight training tasks. A. C. Albritton indicates that designing a curriculum with mostly ATC communication practices will surely help the student pilot feel more confident in handling standard radio calls. However, the student pilot will still have little instruction and practice with: debriefing the flight instructor; requesting a weather briefing; speaking to a dispatcher; reporting a technical problem; receiving non-standard clearance by an air traffic controller; or any of the other tasks related to training [2].

Therefore, a large variety of commonly used resources should be utilized to ensure that the student has had a broader exposure to Aviation English. This can include resources such as flight training manuals, checklists, aeronautical charts, aviation pictures in addition to activities such as total physical response, chair-flying, simulations based on actual instructor / student, dispatcher / student and mechanic / student interactions, interactions with a weather briefer, ATC communications, role-playing, attending safety seminars, etc. These resources and activities can all be extremely valuable language learning tools when introduced in a language learning scenario.

The primary objective of Aviation English training curricula for both *ab initio* students and active operational professionals must be to build and enhance communicative skills and strategies of the trainees. Aviation English trainers should be able to use communicative approach methods to language learning that support their students in the most effective way to reach and sustain the required level of communicative proficiency. Among the examples of a consistently communicative approach to language training we can mention: interactive listening comprehension exercises which also elicit oral responses from learners; classroom information exchange and role-play activities in pairs; practice of vocabulary and grammar

(structure) through oral use rather than reading and writing exercises; using graphical (scopes, instrument panels and charts) and numerical data (tables and displays) to elicit speech production to mirror pilots' and controllers' working environments and situation management, and; group problem resolution activities to develop interactivity and fluency skills.

Another essential component of curricula for *ab initio* students and active operational professionals is autonomous learning or self-study. Trainees often need quite extensive listening practice to improve their comprehension of particular situations in the professional context. The training process should be supplied with a large bank of aviation materials, particularly audio materials, and while some of these materials are used in class as a lead-in to a particular activity, it is generally the case that students need to maximize the time they spend listening to English. By promoting and implementing a self-study program centered on listening, we are able to free up significant classroom hours for speaking.

Content-based Aviation English curriculum for active operational professionals can be especially beneficial if it is safety focused: it enhances the value of required language learning time by pairing language lessons with important safety content. Other important benefits include: safety awareness; providing high-interest topics in the language lessons, and; increasing learner motivation. Finally, motivation is a key factor in language-learning success – people naturally pay more attention to topics in which they have an inherent interest. Thus incorporation of these specific attributes into Aviation English curriculum will yield positive impacts in progress for the students, and the providing training programs [6].

Conclusion

The basic provisions for effective Aviation English training can be summarized as follows: Aviation English training and testing are ultimately about safety; Aviation English training has very specific characteristics which set it apart from general English teaching and even English for specific purposes in other fields. Training should have a predominantly communicative focus. Appropriate content-based language training is a more efficient, motivating and cost-effective form of aviation English training. The content used for language acquisition should be relevant to the population being trained. Student motivation and commitment are essential to successful training outcomes and motivation and commitment will be efficiently and correctly maintained in this learning environment.

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