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SOWING THE SEEDS OF AERONAUTICAL COMMUNICATION – PAFA’S (POLISH AIR FORCE ACADEMY) EFFORTS TO PREVENT A „COMMUNICATION STALL”

English is the mandated, official language of aviation. Successful interactions in English are essential to the safety of aviation communication. In four high profile accidents (one mid-air collision, one collision on the ground, one accident involving fuel exhaustion and one controlled flight into terrain), almost 900 people lost their lives. Two aircraft collided mid-air near Zagreb, Yugoslavia because the use of more than one language in the air excluded the British crew from building a comprehensive picture of contingency situation. (Cookson, 2009). An aircraft in Colombia crashed because the English crew could not communicate effectively with local air traffic controllers (Boschen & Jones, 2004; Campbell-Laird, 2004; Tajima, 2004). In New York, a Colombian crew failed to state “fuel emergency” and crashed as they were not given landing priority (Alderson, 2009; Boschen & Jones, 2004; Campbell-Laird, 2004; Tajima, 2004). In Tenerife, the deadliest accident in aviation history occurred partly because of the misuse of a single grammatical item (Alderson, 2009; Boschen & Jones, 2004; Campbell-Laird, 2004; Cookson, 2009; Farris, 2007; Monteiro, 2012; Philips, 1991; Tajima, 2004).

The air crashes investigations revealed that these seemingly different types of accidents, shared one common characteristic- insufficient English language proficiency on the part of the flight crew or controllers as a contributory factor in the chain of events. Also data obtained from the ICAO Accident/Incident Data Reporting System (ADREP) database, the United States’ National Transportation and Safety Board reports, and the United Kingdom’s Mandatory Occurrence Reporting Systems confirm that the role of a language in accidents and incidents is significant. One State's review of 28,000 safety reports revealed that over 70 percent of the problems cited involved message exchange (Day, 2004). The rate of the occurrence proves that radiotelephony communications between air traffic controllers and pilots represent one of the most vulnerable links in the civil airspace system. This statement is strongly supported by the evidence of tragic cases where phraseologies turned out to be insufficient to cover non-standard situations, bringing plain language proficiency as an essential component of radiotelephony communications to the attention of the aviation community.

In 2003 ICAO, a department of the United Nations mandated to coordinate cooperation between its member states in accordance with its mission of promoting the development of a safe, efficient, secure, economically sustainable and environmentally responsible civil aviation sector, adopted the recommendations of the Proficiency Requirements in Common English Study Group (PRICESG) regarding minimum LPRs which are broken down to six descriptors on a newly created ICAO Rating Scale. In accordance with the LPRs, all of the ICAO’s member states' pilots and ATCOs had to be tested and achieve a Level 4 in every one of the language descriptors of the ICAO Rating Scale (Moder, 2013; Seiler, 2009).
In 2010, the Polish Air Force Academy adopted the policy of testing and training based on the guidelines laid out in the ICAO Doc. 9835 and in cooperation with the Polish Civil Aviation Authority trained examiners for EUROCONTROL developed exam ELPAC (English Language Proficiency for Aeronautical Communication). The choice of the test was by no means accidental. ELPAC is one of the two tests fully recognized by ICAO for being in conformance with ICAO Standards and Recommended practices (SARPs) for Language Proficiency Requirements (ICAO, 2015). This means that the ELPAC test meets all of the ICAO Language Proficiency Requirements and follows good language testing practices. The test focuses on language proficiency, not operational procedures, yet its design reflects the range of tasks undertaken in air traffic control and pilot communications.

ELPAC tests English language proficiency at ICAO level 4 (operational), level 5 (extended) and level 6 (expert). Both phraseology and plain language are included in the test.

ELPAC for operational and extended levels consists of two test papers:

**Paper 1:** Listening Comprehension which is administered via the internet. It tests understanding communications between pilots and controllers, controllers and controllers and between pilots and pilots in both routine and non-routine situations. The recordings are based on authentic material and range from short standard pilot transmissions to longer communications featuring non-routine or unusual situations.

**Paper 2:** Oral Interaction assesses the controller’s or pilot’s proficiency through non-visual and visual communication, starting with the topics rooted in situations imitating real life conditions and gradually moving into topics discussed in the broader, more abstract context.

The testing itself has never been, however, the final goal. PAFA’S core business is not testing but training and for this reason a programme in Aeronautical English training has been developed. Designing any language course is a complex task but designing a course preparing for a high stakes exam creates an additional challenge. Fortunately, aviation industry is a highly regulated area and aviation communication is no exception in this matter. ICAO developed recommendations concerning the successful delivery of an aviation English training programme. In accordance with these recommendations, the course developers had to consider several factors affecting directly the delivery process. First, they had to define what Aviation English is. Before all else, it was important to understand ICAO’s differentiation of phraseology and “plain language”.

Phraseology is a strictly prescribed set of vocabulary that is constrained by interactional rules, limited grammar, and some specially adapted phonology (Moder, 2013). Phraseology is primarily used for routine interactions and for a limited array of non-routine communications. “Plain language” is used in those situations where phraseology is not sufficient for the needs of the moment (Barshi & Farris, 2013; Emery, 2014; Kim & Elder, 2009). This understanding and differentiation is important for the Aviation English course content selection which, as Moder (2013) believes, should reflect the target language situations as closely as possible. Doc 9835 advocates the use of content-based language learning in aviation English for reasons of learning efficiency, relevance of the subject matter, motivation and cost-effectiveness. 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 (Mathews, 2007). Additionally, with ab-initio students Content and
Language Integrated Learning (CLIL) serves dual-focused aims of learning the content and the simultaneous learning of a foreign language (Marsh, 1994). Therefore, it is recommended that whatever choices are made about the content or subject matter, their relevance to professional situations must be observed. Equally challenging is sequencing the subject matter information combined with the relevant linguistic input in such a manner that basic subject matter information is introduced before more complex information is presented along with linguistic contents following the same logical progression.

Once the stage of content selection and ordering of teaching events was completed, the course developers had to consider teaching methodology that is a form in which the content would be delivered to students in the classroom. The literature consistently recommends that English language learning activities should be focused on communication skills in an aviation context (Bratanić, 1999; Bullock, 2015; Emery, 2008; Farris et al., 2008; Makarov & Voskoboynikov, 2011; Uplinger, 1997) Farris et al. (2008).

The ICAO Language Proficiency Requirements (LPRs) are about oral communication. The holistic descriptors in Annex 1, Appendix 1, state that: “Proficient speakers shall:

a) communicate effectively in voice-only (telephone/radiotelephone) and in face-to-face situations; ICAO Circular 323-AN/185 5
b) communicate on common, concrete and work-related topics with accuracy and clarity;
c) use appropriate communicative strategies to exchange messages and to recognize and resolve misunderstandings (e.g. to check, confirm or clarify information) in a general or work-related context”.

Therefore, it should be understood that the goal of any aviation English training curriculum must be to develop and enhance these communicative skills and strategies. Aviation English training developers must be able to demonstrate conclusively that their programmes 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.

One of the pivotal issues among the factors impacting the delivery process is that of trainers on whom effective delivery of the training contents depend. Even the best designed aviation English training curriculum is of no use without fully operational trainers with their skills and experience. Yet, to become a fully operational aviation English trainer requires much study, experience and commitment.

Doc 9835 lays down “best”, “very good” and “minimum” qualification guidelines for aviation English trainers. Along with academic qualifications, aviation communications familiarity and teaching experience, other important teaching attributes are included like sensitivity to and awareness of cross-cultural issues, a commitment to continued professional development, respect for the student and an ability to engage and motivate students. Apart from formal qualifications, trainers bring to the job, they are first and foremost individuals. Their personality and past experience make a difference to the whole process. In assessing trainers, the overall profile, including components like attitude, responsiveness, curiosity, inventiveness, cross-cultural sensitivity, and the ability to use and communicate experience, should be taken into account (Williams, 2016).

Special emphasis should probably be put on commitment to lifelong learning because the trainer never stops learning. As mentioned in Doc. 9835, in teaching English for specific purposes for the aviation community, three years’ experience is the accepted minimum before a trainer has acquired enough familiarity to become comfortable with the subject matter.
ICAO Circular 323-AN/185 15 states that even for a fully qualified English teacher with English for Specific Purposes (ESP) experience, several years of close contact in the aviation world and an inquiring mind will be necessary to obtain the degree of familiarity required for a fully appropriate exchange with professional pilots and air traffic controllers. It is advocated that the aviation training provider or the institution’s training department should set up and sustain a programme to facilitate and support this type of on-the-job training consisting of frequent contact with operational experts/instructors, viewing aviation training materials, going on field trips, having time set aside for study and research, etc.

To this end, PAFA has undertaken the effort of training its AE instructors by providing in-house trainings conducted by SMEs who are members of the Aviation English teaching staff and training events in cooperation with the foreign training providers. OISE Bristol delivered induction training familiarizing the trainers with Doc 9835, then experts from ENAC, France conducted two courses acquainting the audience with the operational environment of air traffic controllers and pilots. Training sessions of interest to the whole teaching staff are regularly scheduled and additionally PAFA’s examiners attend refresher courses conducted by EUROCONTROL and Zurich Applied Science University to calibrate their skills in the peer group of other examiners from all over the world.

Another critical element of AE training is the training facility. As advocated by the ICAO manual, the language learning classroom should be an interesting, lively and engaging place to be. Because language learning is about communicating, it involves interacting with others, the best classroom will have a flexible design, with chairs and tables and desks that are easily moved. The environment must also be appropriate for computer aided training. For the above mentioned reasons, the ESP Centre has been refurbished and equipped to meet the requirements and also to be suitable for self-access after classes.

Finally, it is worth remembering that ESP component of the Aviation English does not exist in a vacuum. It is rooted in a general language. Phraseology is a subset of Aviation English, which is in turn a subset of General English. It is the use of the language itself that justifies the existence of the specialty area. English for General Purposes provides solid basis for a content area literacy which is the ability to understand texts, written or spoken, in a specific subject and PAFA can pride itself on a long term dedication to building these solid bases of linguistic expertise of airmen through a selection of courses based on explicit language proficiency requirements, both for ab-initio students as well as fully qualified operational personnel.

BIBLIOGRAPHY


