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Professionally Significant Personality Traits and Soft Power Skills Development in Esp Teaching

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Abstract
Miscommunication in pilots' and air traffic controllers' radio exchange has always been a deep concern in aviation. Standard phraseology provides pilots and air traffic controllers with special phrases to minimize the risk of miscommunication in a multilingual environment. It is designed to facilitate unambiguous and concise radio exchange. In non-standard situations, which are not covered by standard phraseology, the ability to use plain language is a must. The language training aims to ensure that language activity does not distract pilots' and air traffic controllers' attention and saves time to make the right decisions. The authors believe that improvement of professionally significant personality traits such as motivation, emotional stability, the accuracy of reaction, thinking elasticity, logical reasoning as well as the ability to process information quickly, select reasonable hypotheses, picture flight environment, predict the development of the situation, and anticipate the result of the activity can be a highly efficient way to reach this goal. The authors also consider soft power skills as an indispensable part of pilots' skill sets and distinguish the most significant of them. The problem is that the points mentioned above are not included in the pilots' and air traffic controllers' language training. Therefore, the research aims to identify a set of professionally significant personality traits and develop ways of their improvement. The most efficient digital resources are distinguished. The research outcomes will significantly contribute to flight safety.
Keywords: Aviation English, emotional stability, miscommunication, motivation, professionally significant personality traits, ESP teaching

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Introduction

The problem of miscommunication has always been a deep concern in aviation. Flight safety depends not only on interaction between pilots and ATCs. Misunderstanding and misinterpretation might occur in any of these types of aviation communication (Figure one).

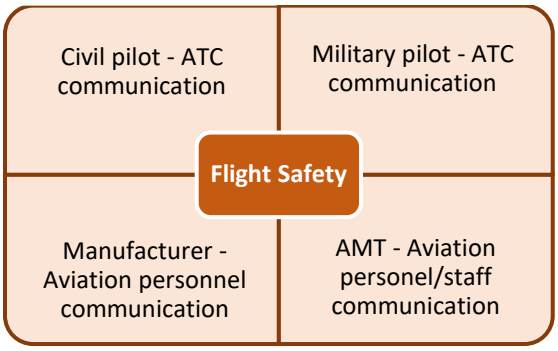

Figure 1. Types of aviation communication

While the radio exchange between pilots and ATCs is oral, aircraft manufacturers communicate with the air force and airline operators, as well as maintenance technicians and other aviation personnel mostly in written English through working cards, maintenance manuals, checklists, Illustrated Parts Catalogs (IPC), Troubleshooting Manuals (TSM), Service Bulletins (SB), flight deck documentation, Service Information Letters (SIL), Structural Repair Manuals (SRM) data cards, notices to airmen (NOTAMs), airworthiness directives (ADs), safety updates and briefings.

Language and communication issues in aviation require the same careful and systematic study as human and operational factors. Language and communication-related findings can be used to reduce the risk of aircraft accidents. It has already been said a lot about the causes of the events related to language or communication failures: non-standard English in support documentation and manuals, inadequate crew and ATC's English language proficiency, improper ATC-crew communication, phraseology problems, dual language confusion, etc (Fowler, Mathews, Lynch & Roberts, 2021).

Ability to ensure reliable communication in English is an obligatory competence for ground and airplane crew to provide flight safety. Aviation English contains a lot of technical and meteorological references presented in numbers, such as aircraft identification call signs, time, altitude, speed, distance, etc. There are approximately 1400 words, hardly any grammatical input, no questions, no social chit-chat, and no effort to be polite (Gerighty, 2009). Both civil and military pilots and Air Traffic Controllers (ATCs) mainly use standard phraseology for radio exchange. Standard phraseology provides pilots and ATCs with special phrases to minimize the risk of miscommunication in a multilingual environment. It is designed to facilitate unambiguous and concise radio exchange, whereas, in non-standard situations, plain English is necessary to request and clarify information.

Different performance characteristics of military and civil aircraft and the functions carried out by General and Operational Air Traffic account for the differences in military and civil aviation communication. While civil aviation uses fixed air routes to travel between destinations, during a flight, military aircraft carry out offensive and defensive missions, including reconnaissance missions, destruction of enemy equipment, participation in rescue operations, combat support,

combat service support, guiding the object, providing logistic supply, and identifying the target with the execution of an attack (Vogel & Střflková, 2022).

Unlike civil pilots who communicate only with ATC, military pilots communicate with ATC and the Joint Terminal Attack Controller (JTAC), and use both civilian and military phraseology. Therefore, ICAO standard phraseology is not enough for military operations performance. Military aviation communication uses expanded ICAO phraseology and NATO brevity codes like "BLUR" – radar being jammed, "BINGO" – pre-briefed fuel state needed for recovery, "WHAT LUCK" – request for results of missions or tasks, "BULLSEYE" – code name for a specific point on the grand or in the air, "CLEARED HOT" – type 1 and 2 CAS terminal attack control when granting weapons release clearance to an aircraft attacking a specific target, RTB - return to base, etc (Vogel & Střflková, 2022).

Although standard phraseology does not contain much grammar, and "say again" is used instead of making questions to clear up information (Harding, 2009), in non-standard situations, which are not covered by standard phraseology, the ability to use plain language is a must. In this case grammar is needed to avoid misinterpretation that can lead to fatal consequences. But it is reasonable to say that the background of the language-based problems is often an insufficient level of professionally significant personality traits development. Including them in pilots' and ATCs' language training can contribute to this problem solution. Such an approach significantly contributes to flight safety.

The current research aims to identify ways to enhance the pilots' and ATCs' ESP training by including professionally significant personality traits and soft power skills development in their curricula.

The research objectives are:

- to distinguish a set of professionally significant personality traits necessary for reliable interaction between pilots and ATCs;
- to share our teaching experience on how to improve these traits;
- to reveal the role of soft power in the context of aviation and the necessity of including soft power skills development in pilots' and ATCs' ESP curricula;
- to distinguish the soft power skills pilots and ATCs should be able to communicate efficiently, build relationships, and promote cooperation.

The study raises the following research questions:

1. What are the language-based communication problems in aviation?
2. How can the professionally significant personality traits influence flight safety and which of them should be included in pilots' and ATCs' ESP curriculum?
3. What is the role of soft power skills and which of them should be included in pilots' and ATCs' ESP curriculum?
4. What are the efficient ways and digital resources to improve professionally significant personality traits?

Literature Review

Miscommunication between pilots and air traffic controllers (ATC) is a human factors problem that has been studied by aviation psychologists and human factor experts throughout aviation history. In the mid-20th century, air travel expanded globally, and language barriers posed a risk to aviation safety. Therefore, the International Civil Aviation Organization (ICAO) established language proficiency standards for pilots and air traffic controllers (ATCs). In 1951,

the first version of Annex 10 to the Convention on International Civil Aviation was published. It included provisions for using English as the international language of aviation and established the principle that pilots and ATCs should be able to communicate in a common language to ensure safety and efficiency.

The first language-related accident in aviation ("Staines Disaster") happened in 1972 and killed all 118 people on board. This was a new impetus to the intensification of research in using plain English in aviation (Hopkin, 1988; Varantola, 1989; Philips, 1991; Fokas, 1991; Monan, 1991; Cushing, 1994, Morrow, 1994). In 2003, ICAO introduced a new language proficiency requirement known as the "ICAO Language Proficiency Rating Scale", but the problem was not solved, and research continued (Douglas, 2004; Mathews, 2004; Mell, 2004; Mitsutomi & O'Brien, 2003; Mitsutomi & O'Brien, 2004; Shawcross, 2004; Wu, Molesworth & Estival, 2019). In 2004, the first edition of Doc 9835 AN/453 Manual on the Implementation of ICAO Language Proficiency Requirements was published. In 2008, ICAO implemented a new policy that required all pilots and ATCs to demonstrate a minimum level of English proficiency, regardless of their native language. Today, the ICAO Language Proficiency Requirements (Doc 9835, 2010) are widely adopted and enforced by aviation regulatory bodies worldwide. To prevent misunderstandings, aviation psychologists and human factor experts analyze language barriers, fatigue, workload, stress, and situational awareness to identify potential solutions. Aviation safety investigators also study communication breakdowns to understand the causes of accidents and incidents and to make recommendations to prevent them in the future.

Petrović & Petrović (2021) believe that the most significant personality traits for commercial airplane pilots are responsibility and cooperativeness, while military pilots must be first of all determined and responsible. But we consider there are many more significant to provide reliable communication in non-standard situations. Dehn and Damitz (2022) identified 17 ATCs' professional qualities through a questionnaire, but their research is oriented on the ab initio selection of candidates best suited for the job position. Issues of safety motivation (Maneechaeye & Potipiroon, 2022; Zhang & Zhang, 2022), pilots mental health (Ackland, Molesworth, Grisham & Lovibond, 2022), pilots' and ATCs' emotional stability in extreme situations (Luciani et al., 2022; Rakas et al., 2022), and some other factors affecting flight safety are being studied more actively. Still, only an integrated approach guarantees positive results, i.e. flight safety increase. Therefore, we believe there is not enough studies to solve the problem of miscommunication caused by insufficient level of pilots' and ATCs' professionally significant personality traits.

Methods

Participants

Our research took place at the National Aviation University (Kyiv, Ukraine) and Flight Academy of the National Aviation University (Kropyvnytskyi, Ukraine). During the 2020/2021 and 2021/2022 academic years, four groups of pilots and five groups of ATCs with an average of twelve students per group were trained according to the improved curricula.

Research Instruments

In our research, we used a multidisciplinary approach. Accident investigation reports, and audio and video recordings were used to identify common communication failures. Observation of pilots' and ATCs' behavior in non-standard situations provided valuable insights into their personality traits. The training simulation method was used to develop situations that imitate real

pilots-ATCs communication. Defining the pilots' professionally significant personality traits is challenging, as personality is complex and multifaceted. But it is crucial to provide flight safety. The critical incident technique was used to collect data on the incidents that are critical for a pilots' job performance and identify personality traits that are significant for successful performance in an emergency. A deep study of the pilots' professional activity revealed that developing their soft power skills is significant, but not provided by the curricula. The presented approach to teaching English to pilots and ATCs is the result of multi-year research on the peculiarities of their job and fatal communication errors.

Research Procedures

We have been analyzing aircraft accident investigation reports and studying pilots' and ATCs' behavior in non-standard situations since 2005. We discovered the psychological nature of most language-related accidents. The risk factors and sources of psychological stress as well as the ways to overcome it, and the mental and psychophysiological qualities that determine the reliability of pilots-ATCs radio exchange, have always been the objects of our research.

For our current study, we distinguished the set of professionally significant personality traits necessary for reliable communication and soft power skills that pilots and ATCs should have. Some activities to improve the identified traits and skills had been developed before making additions to the curricula.

Results

Language-based Communication Problems in Aviation

We illustrated the language-based communication problems (Figure two) from Cushing's (1994) point of view, a person who analyzed a lot of communication failures in real crew-ATC radio exchanges. We would also add code-switching as one of the main causes of the deadliest aviation accident which occurred at the Tenerife airport in 1977. Recent research proved that code-switching does not depend on the level of English proficiency but is likely a problem that occurs between bilinguals (Aldalbahy, 2022; Cushing, 1988). The cause of this type of miscommunication might be using of code-switching instead of target-language-only instructions in an EFL classroom (Al Tale' & AlQahtani, 2022).

In our previous research on civil aviation pilots and ATCs language teaching, we concluded that pilots and air ATCs training cannot be organized as a straightforward summation of academic disciplines, it must be a dialectically developing system with ESP teaching as a subsystem. We experimentally proved the effectiveness of our Aviation English teaching methodology based on the analysis of aircraft accidents and near misses. It helps students overcome the psychological barrier and reduce psychophysiological stress, which rises sharply due to the necessity to communicate in a non-native language without visual contact in an urgent situation.

Language training aims to ensure that language activity does not distract pilots' and ATCs' attention and saves time to make the right decisions. Our further studies showed that we should apply the same approach to the militant's language training, and we consider all these factors in military pilots and ATCs ESP teaching.

Pilots are taught to "Aviate, Navigate, Communicate" which means to fly the airplane first, then navigate, and communicate after the situation is under control. However, sometimes communication plays a vital role in the chain of non-standard events.

In military aviation, there exist quite a lot of uncommon expressions NES (Native English Speakers) irresponsibly use while speaking to one another: "grape" – a pilot who's an easy kill in a dogfight, "angels" – altitude in a thousand of feet ("angels 3" is 3,000 feet), "blind" – the wingman not in sight, "naked" – radar warning gear without indication of a missile threat, "punch out" – to eject from an airplane, "pan-pan," as a signal of urgency and attention, which makes other pilots on the same radio frequency get silent to allow air traffic controller to cope with a critical situation. When the aircraft encounters an emergency above water, military pilots use the expressions "feet wet" (flying over water) and "feet dry" (crossed the shore and flying over land).

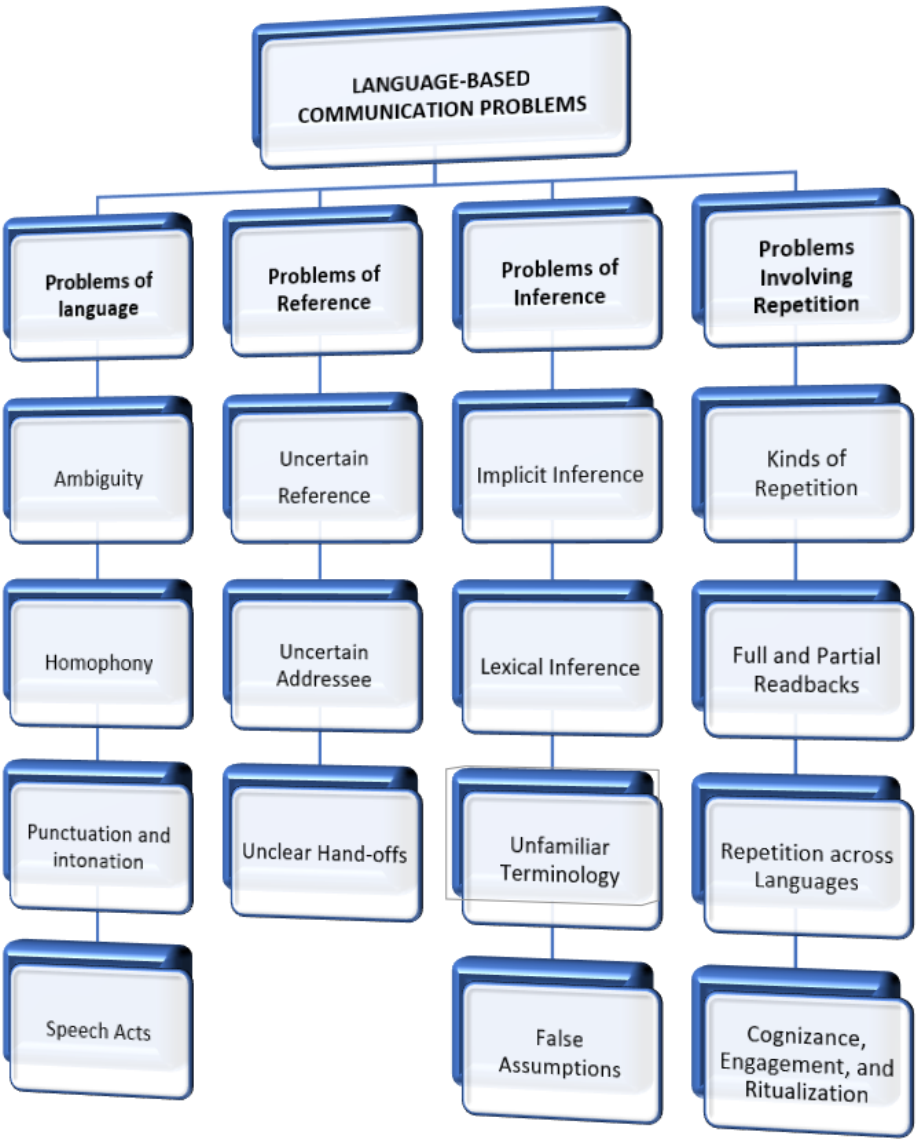

Figure 2. Language-based communication problems

However, slang might be dangerous in communication with EL2 (non-native speakers of English) and, therefore, is prohibited in pilots-ATCs radio exchange (Carrol, 2016; Scottie, 2019). Dr. Estival, a Western Sydney University linguist, pilot, and flight instructor, brings another Australian

pilots' saying "cleared for the big smoke" which means "cleared for takeoff". She calls NES to adapt their communication in the aviation industry to reduce the risk of misunderstanding by EL2-speaking pilots and ATCs. In her book "Aviation English" (Estival, 2016), she warns that some words like "inbound" and "outbound", saying "no" instead of "negative" or "yes" instead of "affirm" and terms for numbers such as "nina" for nine have been misunderstood with fatal consequences (Patty, 2016).

Professionally Significant Personality Traits

We can give one the examples when the insufficient level of professionally significant personality traits led to an aviation accident. The air crash that happened in November 2022 when miscommunication killed a student pilot in Texas, shows that the problem is more than just poor language proficiency. The pilots of the two military jets failed to verify which jet would land first. The teacher also "failed to recognize a precarious situation developing" (Novelly, 2022, p. ?). The study found that miscommunication in pilot-controller exchange happened due to procedural deviation, not just problematic instruction or request (Hamzah & Fei, 2018).

Having studied the peculiarities of the military pilots and ATCs jobs, we enlarged the list of the qualities necessary to provide their efficient foreign language activity. Figure three shows pilots' and ATCs' professionally significant personality traits, which enable them to communicate effectively when experiencing emotional stress, mental strain, frequent use of long-term memory, chronic working memory overload, and ongoing attention pressure (Schuhfried, n.d.).

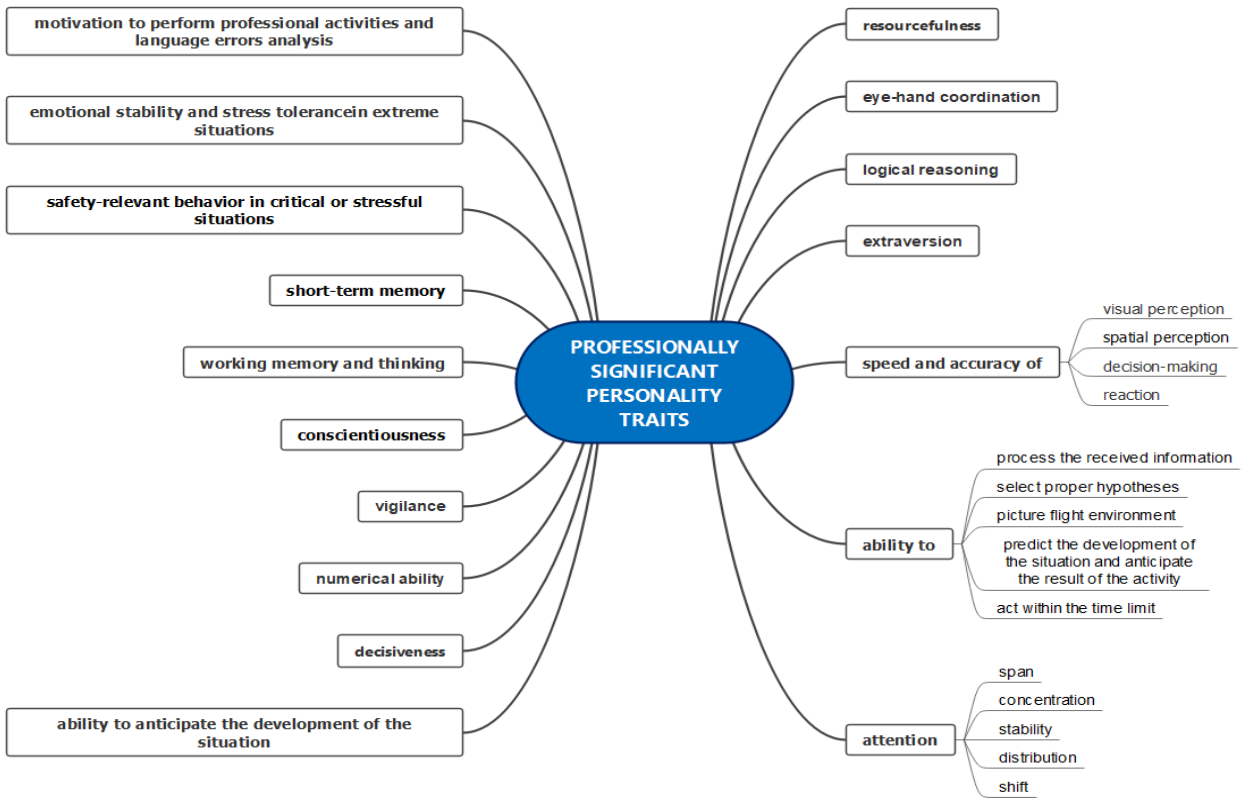

Figure 3. Pilots' and ATCs' professionally significant personality traits

Soft Power Skills in Pilot Professional Training

When studying pilots' training curricula, we realized that insufficient attention is paid to soft power issues. While it is not essential for pilots to be well-versed in soft power issues, having a basic understanding of soft power can be beneficial in certain situations, particularly in the area of international relations and diplomacy. Soft power experts confirm this idea.

> On a global level, aviation facilitates international engagement, thereby encouraging the use of soft power. At the individual country level, aviation provides a useful tool to lift the global brand of a country, while generating new international links. As it expands and grows more efficient, aviation will continue to shape a world where soft, rather than hard, power drives change for the better. (McClory, 2014, p. 32)

The above quote shows the role of aviation in bridging distances and connecting people, cultures, businesses, ideas, innovations, and opportunities. McClory is not the only scientist who considers aviation a crucial source of soft power for a country. In the example of Turkish Airlines, Anaz (2017) also emphasizes the usefulness of soft power for a nation's foreign policy, international visibility, and public diplomacy. Emphasizing the diplomatic significance of aviation, Kobierecki (2021) considers Pacheco's (2004) soft power one of the main theoretical concepts of aviation diplomacy and a means of international communication. The outcomes of Odrowaz-Coates's (2018) research where she confirms that there is a connection between the soft power concept and English language acquisition are also noteworthy as we consider pilots' and ATCs' soft power skills improvement within their language training.

Soft power refers to the ability to influence others through attraction rather than coercion or force. In the context of aviation, soft power may play a role in international relations and diplomacy, particularly in situations where a pilot is interacting with foreign officials or passengers. A pilot must be aware of cultural norms and customs when flying to a foreign country, as certain actions or behaviors may be considered disrespectful or offensive. In such cases, a pilot who is sensitive to soft power issues will be better able to interact and communicate in a way that builds trust and rapport. In this context, we studied which soft power skills pilots should be able to communicate efficiently, build relationships, and promote cooperation (Figure four).

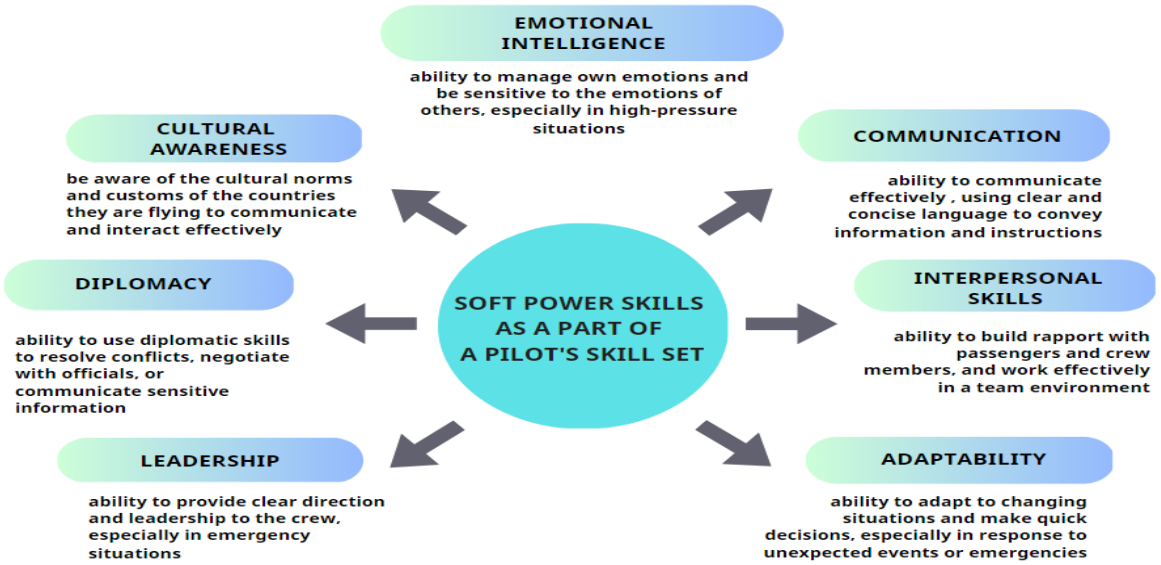

Figure 4. Soft power skills as a part of a pilot's skill set

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Efficient Ways and Digital Resources to Improve Personality Traits Significant for Pilots and ATCs

In pilots and ATCs ESP teaching, we use activities aimed at the improvement of the professionally significant personality traits mentioned above. Stefanova et al. (2020) suggest enhancing learners' motivation by boosting the level of their involvement, which can be reached by adopting a marketing theory of consumer involvement to increase ESP course effectiveness. Yupangco (2020) defines students' emotional (attitudes, interests, and values towards learning), cognitive (intellectual effort to comprehend and master content), and behavioral (time and effort spent participating in learning activities and communicative interaction) engagement (Yupangco, 2020).

Another way to motivate and stimulate students are case studies (Davies, 2009), based on the authentic materials of aircraft accidents investigation. They also contribute to improvement of the personality traits like logical reasoning, abilities to process information, select reasonable hypotheses, picture flight environment, predict the development of the situation and anticipate the result of the activity, etc.

Furthermore, the information age has radically changed our attitude towards education, and we cannot imagine how to motivate students without applying the newest information technology trends (Akıllı, Konoplianyk, & Pryshupa, 2019). Encouraging students to experiment with various tools and applications relevant to their professional studies will help them develop valuable digital technology skills. This, in turn, will boost their motivation and productivity in the learning process. For our pilot and ATC students, we used some brain-training activities like Grammar Challenge (see Appendix). Students have to answer correctly as many grammar questions as they can in 150 seconds. The Leader Board also increases their motivation. Any grammar and vocabulary exercise can benefit from including a time constraint to grab students' attention and stimulate their brains' capacity for speedy information processing.

Regardless of the situation, there always exists some degree of emotional response, and emotions are simply another type of information that must be considered in making effective decisions, especially in a team environment (Frisinger, 2010). We illustrate six dimensions of emotional stability mentioned in Chaturvedi's et al. (2010) research (Figure four):

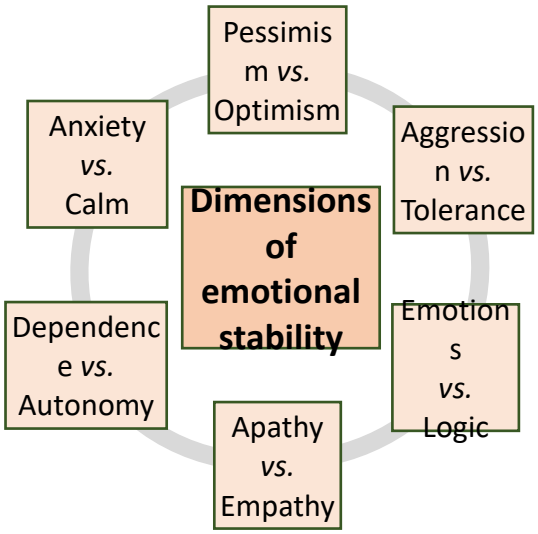

Figure 4. Dimensions of emotional stability

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Even though most people believe they approach decision-making through reasoning, the majority of decisions are motivated by emotions. Shulman (2017) believes that logic cannot always be completed without emotion. It is particularly true when the decision might affect flight safety. Emotions can alter your thinking and behavior, and therefore increasing the level of emotional stability must be kept in mind in pilots and ATCs professional training and language training as a subsystem of it.

We use a lot of exercises aimed at enhancing emotional stability. The simplest one is just turning on the Dictaphone while a student is speaking. Most students get a bit nervous, bringing the learning process closer to real job conditions. You can give a student one minute to get ready for a two-minute monologue about the topic given, but the level of nervousness is higher, and it is more challenging to stay calm if a student doesn't have any time for preparation to speak. Switching to distance learning lessens the possibility to create stressful situations as students consider online classes less anxiety-inducing (Laachir, EL Karfa, & Alaoui, 2022).

The mind's ability to perceive, manage, and express emotions effectively in real life and the ability to regulate feelings and use them to guide our actions is called emotional intelligence, which some people get by birth, while others may need help to build (Chowdhury, 2022; Mayer & Salovey, 1990). Daniel Goleman reveals the abilities an emotionally intelligent person has, one of which is the ability to relate to others' emotions. We consider it significant for pilots and ATCs to be tolerant and helpful while dealing with a person who loses emotional control in a stressful situation. The ability to accurately perceive and understand the emotions of the interlocutor is a core component of emotional intelligence (Davies, Stankov & Roberts, 1998). In aviation, emotional intelligence means being aware of all the participants' mental states, not just your own. While intellectual intelligence is gained through learning and reading, emotional intelligence can be obtained through mindfully attending to current emotional states (Alberts & Poole, 2019).

Some video game genres, like action, puzzle, and strategy games, may result in advancements in attention, reaction, problem-solving, and thinking elasticity. Learning a foreign language itself and, in particular, increasing vocabulary strengthen connectivity between different areas of the brain and improves memory and cognitive function (Atay & Ozbulgan, 2007). To develop the speed and accuracy of reaction, we effectively use different reaction time tests (see Appendix) Fun Trivia Military Matters and Air Forces Quizzes (see Appendix) can also be played as Timed Quiz Games. The opportunity to compete with other players considerably increases the students' motivation and reaction time.

To improve short-term memory, we ask students to read aviation-related texts that contain technical and meteorological references presented in numbers (approximately 200 words per minute) and keep in memory every single detail. Bratel et al. (2020) prove the effectiveness of the experimental method of short-term memory training based on hearing a list of 10 foreign words and writing down those they could recollect. At the same time, we should not forget about the information density, i.e., the number of items in a message, and ICAO guidelines regarding the complexity of messages transmitted to pilots as complex messages increase the error rate in their communications.

As for working memory training, Norris et al. (2019) recommend working memory tasks that include both serial recall of memory sequences and other processing demands. They state that serial recall of visually presented digits can be improved throughout the course of 20 training sessions. To improve logical reasoning, numerical ability, spatial visualization ability, stress tolerance, reactive, focused attention, vigilance, eye-hand coordination, extraversion,

conscientiousness, openness, and agreeableness, the English version of performance and personality tests can be effectively used as short warm-ups in pilots and ATCs ESP teaching (Schuhfried, n.d.).

A time limit can be successfully used in any grammar and vocabulary exercises to excite students' attention and the brain's ability to quickly process information.

Task one. Work in two groups. You have 10 mins. Compare planes one and two. Find as many differences and similarities as you can. Which group can find more?

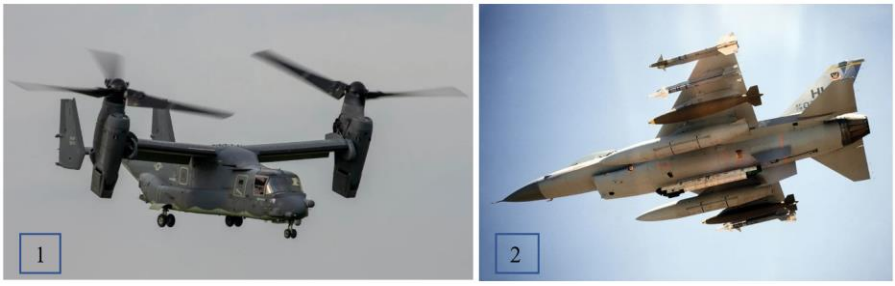

Figure 5. Planes one and two

Task two. Work in pairs. You have 10 mins. How many comparisons can you write about aircraft three and four? Write complete sentences. Compare your answers with other pairs of students.

Figure 6. Planes three and four

There are some examples of how we use Steven Cushing's analysis of the pilots-ATCs communication problems to discuss them with our students (Cushing, 1994).

Task three. Read the lines from the pilot-ATC radio exchanges. The controller misinterpreted the pilot's message. Why do you think it happened? What was wrong with it?

One of the two fighters on the instrument route experienced mechanical problems and stated:

– *We need a clearance back to base.*

Then the controller issued an IFR clearance, to which the aircraft replied:

– *We are in a left turn and we are climbing to 17,000.*

Answer: The controller interpreted "we" as meaning that both fighters were returning to their home station. In fact, only the lead aircraft wanted to return, a misunderstanding resulting from an uncertainty in the reference to the pronoun "we".

Task four. What do you think could lead to the accident at Miami International Airport on 29 December 1972?

"2334:05 EAL 401: *Ah, Tower this is Eastern, ah four zero one, it looks like we're gonna have to circle, we don't have a light on our nose gear yet.*
2334:05 EAL 401: *Ah, Tower this is Eastern, ah four zero one, it looks like we're gonna have to circle, we don't have a light on our nose gear yet.*
2334:14 Tower: *Eastern four oh one heavy, roger, pull up, climb straight ahead to two thousand, go back to approach control, one twenty-eight six.*
2334:21 EAL401: *Okay, going up to two thousand, one twenty-eight six.*
2335:09 EAL 401: *All right, ah, approach control. Eastern four zero one, we're right over the airport here and climbing to two thousand feet, in fact, we've just reached two thousand feet and we've got to get a green light on our nose gear.*
2336:27 MIA *Approach Control: Eastern four oh one, turn left heading three zero zero.*
2338:46 EAL 401: *Eastern four oh one'll go ah, out west just a little further if we can here and, ah, see if we can get this light to come on here.*
2341 Second officer within cockpit: *I can't see it, it's pitch dark and / throw the little light, I get, ah, nothing.*
The approach controller sees the apparent decline in elevation indicated on radar.
2341:40 MIA App Con: *Eastern, ah, four oh one how are things comin' along out there?*
2341:44 EAL 401: *OK, we'd like to turn around and come, come back in.*
2341:47 MIA App Con: *Eastern four oh one turn left heading one eight zero.*
2342:12: impact: Aircraft crashes into the Everglades."

Answer: uncertainty about the reference of the indefinite noun "things" in line 2341:40 contributed directly to the Miami accident. The approach controller used the word "things" to refer to the aircraft's apparent decline in elevation, which he had seen indicated on radar and wanted to check with the crew, still the crew appears to have taken it to refer to a nose-gear problem that they had been preoccupied with and had just informed the controller about. They were unaware of the decline in elevation precisely because of this preoccupation. When the crew responds with "Okay", the controller erroneously concludes that the decline in elevation is under control, even though, in fact, the crew has no clue that the elevation is even an issue.

Task five. How could the pilot in the first case and the ATC in the second one help to understand what they wanted to say? Think of similar words and phrases that can also be misinterpreted and lead to an accident.

Task six. Replay the communications above according to the "four-step 'confirmation/correction closed-loop' technique" required by ICAO:

1) the sender transmits a message;
2) the receiver actively listens to the messenger;
3) the receiver repeats the message back to the sender;
4) the sender actively listens for the correct readback.

Discussion

Having analyzed aircraft accident investigation reports and studying pilots' and ATCs' behavior in non-standard situations, we distinguished a set of professionally significant personality traits necessary for reliable interaction between pilots and ATCs. To implement our ideas in pilots and ATCs language teaching, we developed a system of activities and selected the appropriate online tools to enhance the identified traits. Subsequently, we included these items in pilots' and ATCs' curricula and put them into practice. We consider it a significant accomplishment that we

managed to capture students' attention regarding the necessity of developing these traits and provide them with strategies for their life-long improvement. This achievement was supported by feedback from both students and colleagues, who we shared our research findings with. We once again became convinced that the issues of professionally significant personality traits should obligatory be included in the pilots' and ATCs' curricula to contribute to flight safety. This should be followed by the development of teaching and learning materials and ways to apply innovative technologies to pilot and ATC students professionally significant personality traits improvement. From our experience, we would recommend doing it in cooperation with aviation experts.

Conclusion

The research aimed to identify ways to enhance the pilots' and air traffic controller' language training through including professionally significant personality traits and soft power skills development in their curricula. We presented the key ideas and principles that define our approach to the military and civil pilots' and air traffic controllers' language teaching. The study suggests ways to improve pilots' and air traffic controllers' professionally significant personality traits, in which insufficient level is often the background of communication failures in pilots and air traffic controllers interaction. In the research, we considered the Aviation English training a subsystem of a dialectically evolving system of pilots' and air traffic controllers' professional training, where all the subsystems contribute to achieving the intended outcome. The outcomes of the study will allow organizing the pilots and air traffic controllers language teaching in such a way that communication in a non-native language does not distract their attention. They will have more time for making the right decisions.

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Appendices

Appendix A

Grammar Challenge	https://www.grammarbank.com/grammar-challenge-advanced.html
Multiple Terrains, Multiple Weapons	https://www.mathsisfun.com/games/tanks2.html
Number Games (HTML5)	https://www.mathsisfun.com/games/games-number-html5.html
Strategy Games	https://www.mathsisfun.com/games/games-strategy-flash.html

Red Light – Green Light Reaction Time Test	https://faculty.washington.edu/chudler/java/redgreen.html
Brain Games	https://faculty.washington.edu/chudler/chgames.html
Reaction time tests	https://shorturl.at/rKSXZ, https://cps-check.com/reaction-test https://www.arealme.com/reaction-test/en/
SKILL-TEST	https://skill-test.net/reaction
Fun Trivia Military Matters and Air Forces Quizzes	https://www.funtrivia.com/quizzes/