

## MODERN PSYCHOLOGICAL AND PEDAGOGICAL TEACHING METHODS

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### TAINING HELICOPTER PILOTS FOR RADIO COMMUNICATION IN ENGLISH IN A HIGHER MILITARY EDUCATIONAL INSTITUTION

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Flights in international airspace, participation of helicopter pilots in peacekeeping operations, rescue expeditions, evacuation of the population make increased demands on the level of their foreign language training in a higher military educational institution.

Teaching Aviation English is specific in terms of purpose, content, proficiency criteria and relevant professional and personal indicators and conditions of use, as it is designed to ensure the exchange of messages between the pilot and the air traffic controller, uses a specific set of vocabulary, phrases and functions of communication which is performed mostly orally and often without eye contact [1]. It should be noted that the lack of a visual channel of perception causes an increased dependence of the listener's understanding on the clarity and correctness of the speaker's message. The decisive criterion for the effectiveness of the communicator's actions is operational efficiency, not linguistic correctness, although the latter is of great importance too.

Experience has shown that the requirements for adequate radio communication between pilots and air traffic controllers can be met by developing special phraseology for radiotelephony based on adapted English [2, 3]. The use of non-standard phraseology is observed among air traffic controllers (64%), pilots (41%), as well as due to the accent of an air traffic controller (34%), language problems (46%), and ambiguous phraseology (41%). Jammed frequency is the congestion of the radio channel (63%), the load on the air traffic controller (33%), untimely radio transmissions (27%), the load on the pilot (22%), messages that are too long (20%) [4].

Given the importance of radio communication in ensuring accident-free flights, we focused on improving the methods of teaching phraseology to future helicopter pilots and the principles of radio communication at the main stages of a training flight.

The task of improvement was to develop the plots of role-playing games, their decomposition in the form of standard and non-standard communication situations, language tasks, exercises, etc. The content, procedure and duration of the role play were determined by the nature of the situation, its complexity, the amount of verbal data on the flight diagram, the number and possibility of joining new participants (eg warning of oncoming aircraft, diversion to the alternate aerodrome due to adverse weather conditions at the destination airport).

Content-procedural aspects of improving the above mentioned methods included the development of their educational and methodological support in the form of logical and linguistic support for pair and group work, a package of computer animation programs for modeling the route of a helicopter, and so on.

The use of methods involved a gradual increase in the complexity of tasks, the advancement of cadets from learning and reproducing language structures to independent modeling of professional communication situations (change of departure and arrival points, digital flight parameters).

The improvement of methods involved the use of such resources of information and educational environment in higher educational institutions as regular classrooms with classboards and/or interactive whiteboards, language classrooms, training cockpits of Ми-2, Ми-8, Ми-24 helicopters that are located in specialized classrooms. An effective means of modeling a situation of radio communication with the subsequent development of phraseology is a static graphic model, created on a regular or interactive whiteboard or a slide projector. The static nature of the proposed information allows cadets to think about the situation and analyze their response. At the same time, cadets can be creative if they change the model of the route, make role interaction more complicated, restore some of the missing information (frequency, call signs, coordinates), expand the circle of participants in an exchange and so on. The most successful place to practice radio communication skills is, in our opinion, a flight simulator, which allows you to practice not only the speech response, but also the motor response to control the helicopter. Lack of time to notify

the air traffic controller simulates conditions of a real flight which can lead to cadet's stressful state, so language tasks should be formulated in such a way that their implementation contributes to cultivating stress-resistance as a professionally important feature of helicopter pilots.

Research into computer simulations of helicopter movements, which creates unique opportunities for creating learning situations of radio communication are prospective [5, 6]. Graphic and animation editors make possible image mobility, time constraints and, consequently, increased speed of decision-making (for example, the pilot must answer questions while the helicopter is performing a «turn / turn out» maneuver, otherwise the screen shows the consequences of inaction or incorrect actions, collision of the helicopter with other aircraft). The approbation of improved methods involved their evaluation by a group of experts.

The experts noted the following advantages of the improved methods:

- better mastering of vocabulary, phraseology, key verbs, grammar structures of radio communication during movement of the helicopter;

- facilitating memorization of the sequence of messages to the air traffic controller due to the differences in radio communication in native and English languages during a training flight;

- mastering professional terminology (frequency, echelon, area of responsibility of air traffic control), acquisition of skills of working with flight charts, documentation, radio equipment, sound recording means;

- gradual formation of a sense of confidence and responsibility for the safety of flight, professional «I-concept» of helicopter pilots.

At the same time, the analysis of expert opinion allowed us to conclude that it is inexpedient to focus only on standard phraseology of radio communication in teaching cadets, as the latter, although it helps to avoid misunderstandings, is not able to describe all possible circumstances and reactions. Therefore, in cases where standard phraseology does not «offer any typical forms of verbal communication, pilots and air traffic controllers switch to plain English», which raises the issue of enriching the English-language arsenal of aviation professionals.

Thus, in the process of researching this issue, we focused on modeling situations of helicopter pilots' foreign language professional communication, in particular creating incentives for developing cadets' English-speaking activities at reproductive, creative and reproductive levels to be fluent in vocabulary, phraseology and grammar structures of radio communication.

In the future, it is planned to study the issues of providing non-standard radio communication at different stages of a helicopter flight in order to develop a single set of language situations of a training flight based on aviation English.

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## АСПЕКТ ВИХОВАННЯ ПІД ЧАС ЛЕКЦІЙ У КОНТЕКСТІ ВИХОВАННЯ У ВИЩІЙ ШКОЛІ І ГЛОБАЛЬНИХ ПИТАНЬ ФОРМУВАННЯ ОСОБИСТОСТІ

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Процес виховання людини протікає все життя. Процес виховання передбачає формування системи значущих цінностей (вважаємо, заснованих на ідеалах добра, гуманізму, справедливості), критеріїв які визначають поведінку у різноманітних ситуаціях, духовної здатності на реалізацію дій, які відповідають внутрішній системі цінностей і