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The use of zigzag dialogues for training aviation personnel

A modern interactive method of teaching – zigzag dialogue technique for training aviation personnel is proposed. The research tasks were to find out the zigzag dialogue technique possibilities in increasing the level of students' language competence in general.

The development of the aviation industry all over the world helps to solve a whole range of vital tasks, including issues of national importance, including state security, and personal, individual interests of people. Aviation, among other things, performs an important integration function within individual states and between different countries around the world. Flight safety is one of the fundamental conditions for the successful functioning and development of this industry. Moreover, according to statistics, 80% of all air crashes are caused by the so-called human factor. Most of the critical errors leading to fatal consequences are caused by communication problems between pilots and air traffic controllers [1]. Therefore the use of a single language (which is currently the English language) in the process of radio communication occupies a leading position in ensuring flight safety.

International Civil Aviation Organization (ICAO) developed the language of radio phraseology for communication between pilots and air traffic controllers during the flight on the basis of English [2,3]. The radio language includes a set of standard, generally accepted phrases in English that flight personnel and air traffic controllers use to exchange information in the process of flight communication, according to the requirements developed for each specific situation [4].

The main goal of creating a special language for radio phraseology exchange is to remove language difficulties in the process of communication between pilots and air traffic controllers and to ensure flight safety both in normal mode and in emergency situations. However, an analysis of the reasons of plane crashes that have occurred over the past 10 years indicate that the insufficient level of English proficiency, both on the part of pilots and on the part of air traffic controllers, is still a key link in the chain of events leading to plane crashes [1].

Nowadays a fairly rich experience has been accumulated in methodological developments and methods of teaching English in the field of civil aviation. Among the authors dealing with these problems, one can note a number of western experts: S. Applinger, M. Long, R. Donato, S. Breul, F. Robertson, S. Sarmento, A. Wang, A. Kukovets, P. Shawcross, G. Emery, A. Roberts.

Nevertheless today the issue of introducing and using interactive and group methods and techniques for teaching the language of aviation personnel has not been sufficiently studied and analyzed.

Thus, the purpose of this study is to analyze the possibilities and substantiate the effectiveness of the results of the introduction and further use of the zigzag

dialogue technique (as a modern interactive, group method) in the process of language training of civil aviation personnel.

Most aviation specialists perceive the phraseology of radio communication as a kind of code language, regardless of the meaning of the words used. The ability to speak fluently and understand English is no less important criterion for the professional competence of pilots and dispatchers than excellent knowledge of the radio language. Huge prospects in terms of developing communication and listening skills open up in the process of using interactive methods and teaching techniques (in this study, this is a zigzag dialogue technique).

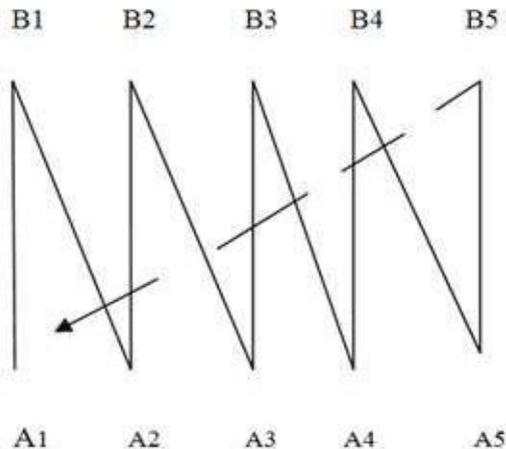
The zigzag dialogue technique is a new interactive form of oral communication aimed at the formation and development of listening, understanding and speaking skills, that is, the implementation of effective communication. The main goal of this method is to develop the ability to understand the interlocutor as accurately as possible and instantly react to the information received. During the training in the zigzag dialogue mode, the teacher does not correct grammatical mistakes; however, special attention is paid to lexical mistakes and fluency.

The zigzag dialogue technique starts with dividing a group of students into 2 subgroups (A and B). Members of each subgroup are assigned a specific role. For example, the students of subgroup A act as pilots, and subgroup B - as air traffic controllers (next time the roles will necessarily change). A student from subgroup A, sitting opposite a student from subgroup B, asks him a question, to which he must give an instant answer. The next student of subgroup A must answer the question of the student of subgroup B.

The zigzag dialogue is based on professionally oriented topics, including both standard situations and emergency cases that may occur during the flight.

Graphically, the zigzag dialogue technique is shown in Figure 1.

Fig. 1. Diagram of the zigzag dialogue technique



Zigzag dialogue is a transformation of cross-discussion and refers to (inter) active teaching methods that stimulate cognitive activity and ensure the activity and diversity of students' mental and practical activities in the process of mastering educational material. The use of active methods in teaching communication in a foreign language is efficient, since they “are based mainly on a dialogue, involving a free exchange of views on ways to resolve a particular problem, are characterized by a high level of student activity” [5, p. 4].

Zigzag dialogue is also a subject to the rules of cross-discussion on different topics [5, p. 51–52] and includes a number of stages:

1) students are divided into two groups that support or oppose the proposed thesis;

2) each group collects, discusses and formulates arguments in support of their point of view (based on the proposed texts and / or their life experience);

3) cross-discussion: the participants of each group name the prepared arguments in turn and react to the statements of the opponents. Each participant must come up with some kind of argument;

4) during the discussion, representatives of the teams briefly record the arguments of the opponents for the subsequent summing up of the discussion.

Such form of work as zigzag dialogue satisfies the needs of all students, regardless of their type of information perception. Thus, visuals who receive information mainly through the visual channel are especially active in assimilating the material at the stage of preparation for the discussion, since they work with the proposed supports, texts, and their own notes. For auditors perceiving information best by ear, the most significant stages will be the voice of arguments in the group and their subsequent oral presentation. The process of discussing one's position in a group and reacting to the point of view of opponents contribute to the assimilation of information by communicatives, which assimilate educational material mainly in the course of discussions. Kinesthetics, who perceive the world through sensations and actions, can satisfy their needs by writing down the group's arguments during preparation and in the final stage. In addition, the discussion itself can be accompanied by gestures that are important for this type of student.

It is obvious that such technique of use of zigzag dialogues can generally improve language skills of students however it cannot be used in teaching radio communication phraseology as cross-discussion is not needed there.

Nowadays, when international aviation operations are actively developing, the importance of effective language training for pilots and air traffic controllers is growing. New requirements for language proficiency set new trends in the system of language teaching in civil aviation. Accurate communication plays an important role in the interaction of pilots and controllers. Since the main goal of language training is successful communication, a communicative approach should be used in the educational process.

Both the radio phraseology course and aviation English should be included in the training curricula for pilots and air traffic controllers. The use of appropriate pedagogical strategies is one of the most important factors in ensuring high learning outcomes.

It can be concluded that the introduction of the zigzag dialogue method in classroom work improves listening, understanding and speaking skills, as well as the level of English proficiency in general. The zigzag dialogue method should be actively used in the educational process of aviation English, as it provides adequate support for the language training of pilots and air traffic controllers.

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