

## ДИСКУРСОЛОГІЯ

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### THE PROBLEM OF BILINGUALISM IN AVIATION ENGLISH

*In the article it was highlighted the problem of bilingualism in aviation and its role in accidents and incidents. Language plays a key role in future aviation specialists' professional preparation in the context of flight safety. Code switching is a term that refers to the alternation between two or more languages, dialects or language registers in the course of communications between people who have more than one language in common. Code switching often occurs in bilingual communities or families. In aviation environment code switching can occur even between native English speakers and often involves switching between technical jargon and vernacular English. This can lead to communication problems when the same word has different meanings in the technical and vernacular language. In the article the author gives a brief overview about communication failures due language problems. The recommendations for teaching process of bilinguals in language training were suggested.*

**Keywords:** *bilingualism, aviation specialist, professional language training, aviation English, accidents and incidents.*

**Introduction.** English is the official language of aviation. Today, English is spoken by more non-native speakers than native speakers. Many flight crews are now composed of non-native English speaking pilots from different countries. This situation, combined with the fact that many controllers are non-native speakers, can lead to substantial communication issues that can affect flight safety. Therefore, any discussion of communications must focus not only on the intelligibility of non-native speakers to native speakers but also on the interaction between non-native speakers.

In the context of European integration and globalization of Ukrainian educational space, a key challenge is deep and comprehensive modernization of the high school with necessary resources and creating mechanisms for their effective implementation. For successful implementation of the indicated processes it becomes important ensuring education quality in future specialists' training. Code switching is a term that refers to the alternation between two or more languages, dialects or language registers in the course of communications between people who have more than one language in common. Code switching often occurs in bilingual communities or families. Sometimes the switch lasts only for a few sentences or for a single phrase. Code switching within a sentence tends to occur more often at points at which the syntaxes of the two languages align. Thus it is uncommon to switch from English to a native language in everyday life. But it has become common to use two or more languages in professional activity. Bilingualism in aviation is an important element of flight safety in the civil aviation, because lives of passengers and crew on board depend on the pilots' professionalism and their knowledge of English. Thus, it is a very topical issue to operate native language as well as English in aviation sphere.

**Analysis of recent research and publications.** The problem of bilingualism was investigated by many scholars: Yu. Molotkina, H. Kyuchukov, J.-M. Dewaele, T. Bathia,

W. Ritchie, N. Ringblom, V. Sheludko, N. Mukan, Ju. Shyika., M. R. D'Acerno; in aviation the attention on bilingualism was focused by R. Yan, A. Rasouli, S. Simin, etc.

Taking into consideration the achievements of scholars in the aforementioned problem, we should underline that the issue of bilingualism in aviation in the context of its influence upon flight safety has been insufficiently investigated and needs further research.

**The purpose** of the article is to analyze the concept “bilingualism” in aviation context and to investigate its influence on aviation incidents and accidents; to suggest recommendations for teaching process of bilinguals in language training.

**The main material presentation.** Due to intensive globalization process, bilingualism often appears in Ukrainian language. In recent years, this process has been reinforced by the rapid development of Internet communications and social media. Bilingualism is typical for every language in the world as it is the result of cultural contacts between two or more language communities.

S. Romaine states that bilingualism or code switching can be defined as the use of more than one language, variety, or style by a speaker within an utterance or discourse, or between different interlocutors or situations [1, p.110].

Some researchers claim that these days there is a tendency of integrating of Ukraine in other cultures which influence its language. As Yu. Molotkina claims the most considerable impact on Ukrainian had Polish and Russian languages as the great part of Ukrainian territory had been under Polish and Russian control for a long time. It led to the appearance of big amount of different Polish and Russian borrowed words. Such lasting co-existence of two languages within one country caused the appearance of Ukraine-specific language-phenomenon like “Surzhyk” [2]. In authors’ opinion Ukraine is now experiencing the process of purification of language from Russian words and implementing Ukrainian equivalents. But on the other hand, it has the problem of using internationalisms at all levels. For example, usage of anglicisms which touched linguistic aspects of the usage of English loanwords.

Based on the observations of H. Kyuchukov about influence of bilingualism and cross-cultural study of language three type of bilingualism have been differentiated: Turkish-Bulgarian, Romani-Slovak and Russian-German. All these languages are very different from each other and they belong to different languages families. H. Kyuchukov’s idea of bilingualism is that the earlier children start to learn a foreign language the better their cognitive process is. On the detailed analysis of three different types of bilingualism a scholar proved that all the processes of transfer of knowledge from one language to another, comparing the language phenomenon in both languages, help children to improve their knowledge on the languages earlier than monolingual children. The metalanguage abilities of bilinguals, the ability earlier to develop sensitivity to languages, help bilinguals from early age to develop their cognitive abilities [3]. From the authors’ observations it can be concluded that children who take up English since early childhood develop very quickly in other languages. Thus, we can agree with this concept as many schools of early development were opened and we can observe the process of language development very often in Ukraine.

N. Mukan, Ju. Shyika, O. Shyika assume that bilingual education develops the more sensitive perception of other cultures and religions, promotes interest in cultures which are associated with certain languages, helps to understand differences, and prevents racism development and stereotype formation [4, p. 37].

S. Esen adds that code switching can be classified as follows:

1. Inter-sentential (in case the language switch is done at sentence boundaries. This is seen most often between fluent bilingual speakers. For example: *If you are late for the job interview, işe alınmazsın.*

2. Intra-Sentential (in case code switching is done in the middle of a sentence, with no interruptions, hesitations or pauses indicating a shift. Code switch occur within the clause level including within the word level. For example: *You are sleepy çoğu zaman, because you spend a lot of saat in your bed.*

3. Extra-Sentential (in case there is an insertion of a tag from one language into an utterance that is in another language. For example: *Turkish students use some boundary words like ama (but) or yani (I mean) while speaking English.* [5].

According to M. D’Acierno a discussion of bilingualism and second language learning distinguishes three types of bilingualism, namely, compound, coordinate, and sub-coordinate. A compound bilingual is an individual who learns two languages in the same environments that he/she acquires one notion with two verbal expressions. A coordinate bilingual acquires the two languages in different contexts (e.g., home and school), so the words of the two languages belong to separate and independent systems. In a sub-coordinate bilingual, one language dominates. As illustration, language development is examined in case studies the following Italian / English bilingual children in Italy: 1) a two-year-old whose Italian father uses both languages and whose English mother uses mostly English; 2) two sisters aged five and nine whose parents are Italian but who have always attended English-language schools; and 3) two Italian teenage boys whose mother has always spoken English to them and who have always attended English-language schools. It is concluded by the scholar that in addition to biological predisposition, motivation and context play a significant role in bilingual development, and that overall, the bilingual experience is enriching [6].

Bilinguals use two or more languages for different purposes, with different interlocutors, in different domains of life. It has touched aviation sphere as well. English is one of the crucial factors influencing flight safety. The professional activity of pilots and air traffic controllers predetermines the need to act in special, complicated and dangerous flight conditions. It means that pilots and ATCs need to know English at a very high level. For most of aviation personnel English is not a native language. Thus, the phenomenon of bilingualism is unavoidable. There are some research questions: is bilingualism good or bad? How does bilingualism influence aviation?

The priority task of the pilot is the ability to make the right and timely decision, to choose the right behavioural strategy in any non-standard situation and to be responsible for the safety of passengers. This also applies to flights on international air routes where radio exchanges are conducted in English, one of the six official languages of International Civil Aviation Organization (ICAO) – French, Spanish, English, Russian, Arabic, Chinese. English was chosen as aviation language by the Aerospace Linguistic Foundation, which conducted a comparison of 18 languages. According to this study, the English language is the most optimal for radio communication between crew and air traffic controllers (ATC).

Code switching can occur even between native English speakers and often involves switching between technical jargon and vernacular English (normal spoken language). This can lead to problems when the same word has different meanings in the technical and vernacular language. In one particular accident, a flight was cleared to land at the same time another flight was cleared to taxi into position for takeoff. The controller told the in-air flight to go around, but the captain asked for the permission to continue landing and inadvertently used the word “hold” to express his request while speaking to his first officer. Specifically, the pilot said “can we hold? Ask him if we can hold.” In aviation jargon, “hold” always means to “stop what you are doing,” but in ordinary English it means to continue on the same course. The controller agreed for the flight to “hold” intending for it to go around, but the flight continued with the landing and collided with the aircraft on the ground.

R. Yan conducted a research concerning the bilingual issue of language proficiency for pilots and air traffic controllers (ATCs) in the international aviation context. Bilingualism is crucial in international aviation, because English is used as the international language for communication between pilots and ATCs irrespective of whatever their first languages may be, and research shows that human errors associated with language communication problems between pilots and ATCs account for 70% to 80% of all airline accidents. For international pilots and ATCs who lack sufficient bilingualism in English, international operations present a safety problem. However, there is a lack of research on English language bilingualism, especially in proficiency testing, in the context of international aviation. The chapter critically examines the bilingual problem in aviation, with the focus on the importance of English language proficiency

for international aviation safety as well as on pilots' and ATCs' awareness of the language factor in aviation safety [7].

In the conducted research A. Rasouli, Sh. Simin investigated the effect of code switching on the process of language learning and the attitudes of teachers / learners about code switching in the classroom. The study concerned aviation English for Iraq students. The researchers found out that teachers and students' perceptions of code switching in aviation language learning courses were not similar about the usefulness of using code switching in classroom management. But their opinions were in line about teacher's persona in using code switching. These results helped them to identify the areas that the students have negative and positive attitudes about using code switching and to manage its usage to enhance and maximize the process of language learning [8]. In authors' opinion this research was a real breakthrough in curriculum design of aviation English as both teachers' and learners' opinions have been taken into consideration.

Because of the importance of bilingualism in English for international aviation safety, it is essential to ensure the highest possible reliability and validity in the bilingual (English) language proficiency testing programs for international pilots and ATCs to enable them to deal successfully with unexpected events and emergency situations. However, most previous studies took for granted the reliability and validity of language testing, and did not ask how to enhance them. The research shows that not only is the reliability and validity of language testing critical to international aviation safety but that good communication between test administrators and test takers can improve the reliability and validity of testing [7].

According to Air Canada's research bilingualism can be used beneficially in classroom activities. As Canada is the largest private sector bilingual employer and provider of bilingual services across the country and globally, Air Canada is proud of its dedicated and hardworking workforce and is fully supportive of the objectives of official bilingualism in Canada. When recruiting new employees who will interact with the public, Air Canada focuses on hiring bilingual candidates. Through considerable efforts in this regard, the company has succeeded in recruiting more than 9,500 flight attendants and airport agents over the past 15 years, close to 60 per cent of whom are bilingual. Air Canada's regional airline partners have also prioritized the recruitment of bilingual candidates and since 2000 Jazz Aviation has tripled its proportion of bilingual flight attendants to approximately 76 per cent. This is despite the challenge of hiring qualified personnel outside of Quebec, the National Capital Region and Moncton. Outside of these three regions, the challenge is the lack of bilingual candidates to fill vacated positions – despite the fact that the company contact Francophone organizations and advertise jobs in newspapers with a Francophone minority readership [9]. So, we can see that leading aviation companies encourage employing bilinguals at their sites. For professional activity it may be a great advantage, because a pilot or ATC can orient very quickly in non-standard situations. In such a way many dangerous situations and emergencies can be avoided.

Based on the aforementioned the authors suggest the following bilingualism initiatives and recommendations for aviation personnel language training:

- to assess the need for bilingual employees in each shift based on airport capacity, category of an airport and labour requirements;
- to determine the appropriate number of bilingual employees required for each shift in order to meet language obligations
- to establish the number of bilingual employees to be recruited;
- to develop a clear procedure to follow when no bilingual employees are available and ensure that it is communicated to and understood by all affected employees;
- to provide employees with training sessions and to promote their language training programs in order to raise employees' awareness of bilingual service;
- to implement numerous automated systems that offer the same standard of quality services in three languages (English, Russian and Ukrainian) – for example, airport self-service, transactions, the mobile apps and the websites;
- to introduce financial encouragement for bilingual employees;

- to re-assess employees to be sure that they are maintaining their language skills and to implement a language evaluation system to help monitor the language skills of new hires and employees based on established corporate standards;
- to offer a vast range of language courses, such as skills maintenance, beginners, announcements and individualized coaching, etc., to develop online training modules that are much more flexible for employees who work various shifts;
- to ensure an English language support telephone line is available to all agents across the world.

**Conclusion.** So, we can say that language situation in Ukrainian aviation companies is still problematic although many steps are being undertaken concerning language training. Excessive usage of anglicisms makes it even more complicated. Due to internationalism in the world and integration of Ukraine into world aviation the problem of using two or more foreign languages has become topical. It complicates the work of personnel. Moreover, professional language training is also of great concern. The authors emphasize the positive aspect of bilingualism in the sphere of aviation. Improving the quality of aviation specialists' language training is a today's necessity considering the aviation industry progress. Approaches revision to the assessment of professionals' educational achievements is enhanced by the European integration process of the higher education in Ukraine. It can be seen a trend of gradual transition to more complex methods of assessment and using of multilevel assessment scales, differential approaches to the assessment of students' educational achievements. It was suggested some bilingualism initiatives and recommendations for aviation personnel language training. Further research can be conducted in the way of improvement the professional training of the aviation industry in the context of globalization and European integration processes by means of implementing recommendations concerning bilingual education at flight schools and aviation companies.

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#### THE PROBLEM OF BILINGUALISM IN AVIATION ENGLISH

**Abstract. Introduction.** In the article it was highlighted the problem of bilingualism in aviation and its role in accidents and incidents. Language plays a key role in future aviation specialists' professional preparation in the context of flight safety. English is the official language of aviation. Today, English is spoken by more non-native speakers than native speakers. Many flight crews are now composed of non-native English speaking pilots from different countries. This situation, combined with the fact that many controllers are non-native speakers, can lead to substantial communication issues that can affect flight

safety. Therefore, any discussion of communications must focus not only on the intelligibility of non-native speakers to native speakers but also on the interaction between non-native speakers.

Code switching is a term that refers to the alternation between two or more languages, dialects or language registers in the course of communications between people who have more than one language in common. Code switching often occurs in bilingual communities or families. In aviation environment code switching can occur even between native English speakers and often involves switching between technical jargon and vernacular English. This can lead to communication problems when the same word has different meanings in the technical and vernacular language. In the article the author gives statistical data about communication failure due language problems.

**Purpose.** The aim of this article is a study of concept «bilingualism», its role in aviation; to suggest recommendations concerning bilingualism initiatives in language training.

**Methods.** In the research the empiric and theoretical methods were used, namely: theoretical analysis and synthesis of psychological and pedagogical scientific sources, observation, comparison.

**Results.** In the article a theoretical analysis was conducted concerning the concept “bilingualism”. It allowed to come to the conclusion that bilingualism can be defined as the use of more than one language, variety, or style by a speaker within an utterance or discourse, or between different interlocutors or situations. The research has shown that bilingualism is crucial in international aviation, because English is used as the international language for communication between pilots and ATCs irrespective of whatever their first languages may be, and research shows that human errors associated with language communication problems between pilots and ATCs account for 70% to 80% of all airline accidents. It was marked that because of the importance of bilingualism in English for international aviation safety, it is essential to ensure the highest possible reliability and validity in the bilingual (English) language proficiency testing programs for international pilots and ATCs to enable them to deal successfully with unexpected events and emergency situations.

**Originality.** Based on the approaches to bilingualism the authors suggest the following bilingualism initiatives and recommendations for aviation personnel language training, namely: to assess the need for bilingual employees in each shift based on airport capacity, category of an airport and labour requirements; to determine the appropriate number of bilingual employees required for each shift in order to meet language obligations; to establish the number of bilingual employees to be recruited; to develop a clear procedure to follow when no bilingual employees are available and ensure that it is communicated to and understood by all affected employees; to provide employees with training sessions and to promote their language training programs in order to raise employees’ awareness of bilingual service; to implement numerous automated systems that offer the same standard of quality services in three languages (English, Russian and Ukrainian) – airport self-service, transactions, the mobile apps and the websites; financial encouragement for bilingual employees; to re-assess employees to be sure that they are maintaining their language skills and to implement a language evaluation system to help monitor the language skills of new hires and employees based on established corporate standards; to offer a vast range of language courses, such as skills maintenance, beginners, announcements and individualized coaching, etc., to develop online training modules that are much more flexible for employees who work various shifts; to ensure an English language support telephone line is available to all agents across the world.

**Conclusion.** Language situation in Ukrainian aviation companies and flight schools is still problematic although many steps are being undertaken concerning language training. Due to internationalism in the world and integration of Ukraine into world aviation the problem of using two or more foreign languages has become topical. It complicates the work of personnel. Moreover, professional language training is also of great concern. The authors emphasize the positive aspect of bilingualism in the sphere of aviation. Improving the quality of aviation specialists’ language training is a today’s necessity considering the aviation industry progress. Approaches revision to the assessment of professionals’ educational achievements is enhanced by the European integration process of the higher education in Ukraine. It can be seen a trend of gradual transition to more complex methods of assessment and using of multilevel assessment scales, differential approaches to the assessment of students’ educational achievements in bilingual education. Thus, it was suggested some bilingualism initiatives and recommendations for aviation personnel language training.

**Key words:** bilingualism; aviation specialist; professional language training; aviation English; accidents and incidents.

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