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AUDIOVISUAL MATERIAL AS A MEANS OF FORMING AVIATION SUBJECT MATTER COMPETENCE OF AVIATION TRANSLATION STUDENTS

Abstract. The paper researches the use of audiovisual material for formation of aviation subject matter competence of aviation translation students. The research involved a pedagogical experiment aimed at the verification of the hypothesis that systemic use of content-oriented audiovisual material accompanied by a specifically developed complex of training activities enhances students' knowledge of the professionally relevant subject matter and skills in adequate use of aviation terminology and technical language, which visibly improves students' professional competence as future translators in the aviation industry. The conducted experiment yielded positive results and confirmed the research hypothesis. As a result of the experimental teaching, the students showed better skills in using aviation terminology, abbreviations and concepts, higher lexicographic awareness, improved their ability to adequately use electronic and printed reference materials when translating aviation texts and to perform translation/interpreting in conformity with grammar, semantic and stylistic norms of radiotelephony communication and aviation standards. The experiment gave convincing evidence that audiovisual material combined with specially designed activities facilitates the formation of the aviation subject matter competence of aviation translation students, which is the basis for their successful professional performance. The audiovisual material and the training activities proved to be effective teaching tools in the framework of a content-oriented structure of aviation translation students' aviation subject matter competence which was developed by the authors. Though the experimental teaching was done in the course on English-Ukrainian and Ukrainian-English aviation translation, the research results may surely be of relevance for other language pairs as well.

Keywords: audiovisual material; aviation subject matter competence; aviation translation students; content-oriented structure; English-Ukrainian translation; language for specific purposes.

1. INTRODUCTION

The problem statement. The ongoing search for effective methods and techniques aimed at forming subject matter competence of translation students is determined by a

number of factors. Global labour market trends are increasing requirements to university graduates' professional competence, which is expected to embrace both a broad understanding of the professional field and narrow specialized knowledge and skills [1]. Philological departments at universities cannot close their eyes to students' and employers' growing demand for a more job-oriented education, in the field of translation in particular [2]. The digitized society and the rapid expansion of e-learning call for revision of the traditional methods of teaching and implementation of innovative ones, aimed at effective, less time-consuming formation of professional competences. Rhodes [3] argues that modern education should form students' ability to build clear connections between theory and hands-on experience, transfer study experience to new situations in the academic context and beyond it.

The challenges of modern aviation industry are setting down ever-increasing requirements for Philology students who choose aviation translation as their career. Over the recent decade, we have been witnessing a growing number of tragic accidents in aviation. Sadly, one of the frequent causes of such accidents is uncoordinated actions of personnel resulting from language misunderstanding [4]. Mistakes in the use of aviation terminology and aviation language in general can cost considerable damage and even human lives. Hence is the demand for effective tools for shaping aviation subject matter competence (ASMC) in the framework of aviation translation students' training, which served an impulse for this research. In our opinion, it is aviation subject matter competence which is the basis for successful professional training of a translator in the field of aviation.

In terms of teaching aviation translation, we understand ASMC as a complex of knowledge, abilities and skills which enable students after graduation to carry out successful professional activities in the field of aviation translation.

Our experience in teaching aviation translation to students at the National Aviation University, Ukraine, has led us to the hypothesis that the methodologically grounded use of audiovisual material, which makes both in-class learning and self-study more motivating and professionally oriented, supported by specially designed training activities can be an effective path towards shaping ASMC and thus can enhance students' skills in English-Ukrainian aviation translation.

The verification of this hypothesis was grounded on the theoretical foundations of teaching translation in general and our practical experience of teaching aviation translation to Philology students in particular. To achieve our aim, we developed a content-oriented structure of translation students' ASMC in the framework of English-Ukrainian translation and conducted an experiment. We suggest that ASMC, which is defined in the content-oriented structure as the goal of training, should be formed on the basis of the modelling typology of activities for teaching subject matter (SM) in the course on aviation translation.

The modelling typology of activities is grounded on such key elements as students' motivation, methods of teaching and means of teaching. The leading role of motivation is outlined by the following statement: ASMC is the basis for successful training of an aviation translator. The major method of teaching is a reasonable combination of traditional and interactive teaching. Audiovisual material was chosen as the main means of teaching.

The major idea behind our approach is that students' motivation in study is ensured by the integrated impact of both external (social prestige of the future profession) and internal (personal ambition to get a higher education degree) factors. Students' academic motivation is regarded as "one of the most important psychological factors related to the success of studies [5, p. 24]", which makes positive motivation an essential driving force for students' acquisition of ASMC as their personal desired goal.

Analysis of recent studies and publications. Various aspects of the issue under research have been in the focus of scholars' attention. The concept of subject matter competence has been analyzed by Holub [6], Latyshev, Provotorov [7]. In particular, Holub

[6] argues against ungrounded fragmentation of the subject matter competence within one academic subject, insisting that each academic subject forms one corresponding subject matter competence.

A range of views on the notion “language for specific purposes” (LSP) has been offered by Seçer, Şahin, Alci [8], Khomutova [9], Pearson [10], Hutchinson & Waters [11]. Methods of teaching English for Specific Purposes have been viewed by the researchers within the general framework of teaching LSP – Ivanenko [12], Douglas [13], Knoch [14] argue that teaching LSP should complement traditional methods and techniques that have proved their efficiency with innovative ones, to find an optimal balance which can yield best results in terms of students’ progress. The scholars emphasize the importance of study material acquisition in interaction between teacher and students. Aviation English as a type of language for specific purposes has been studied by Kim, Elder [15], Li Zhizhuo, Zhu Min, Zhou Yali [16], Estival, Farris, Molesworth [17], Gollin-Kies, Hall, Moore [18].

The use of audiovisual means in teaching has been studied by Wagner [19], Çakır [20], Kim, Elder [15], Gopal [21], Kurbanova [22], Ashaver, Igyuve [23], current trends in the training of translators for aviation industry have been featured by Kovtun [4].

According to Anzaku [24], the term “audiovisual materials” is commonly used to refer to those instructional materials that may be used to convey meaning without complete dependence upon verbal symbols or language. Eze [25] argues that audiovisual materials make study easier and faster compared to purely verbal delivery, as they help students comprehend abstract notions through their sensory channels. Gopal [21] emphasizes that audiovisual materials are essential in teaching foreign languages, as they effectively assist students in overcoming comprehension barriers. Visualization instantly clarifies the picture, removing many problems that otherwise need a lengthy verbal explanation.

On our part, we would like to underline that visualization is indispensable in training specialists for aviation. Without visualization, phenomena and objects of the aviation industry may not only remain vague to students but also cause unnecessary and dangerous stress resulting from emotional associations with tragic accidents. Translation of aviation discourse imposes a considerable emotional responsibility. The importance of subject matter expertise in translation is emphasized by Stitt [26], who stresses that incompetence in specialist translation may result in unpredictable consequences.

One of the ways to lift such stress is to teach aviation translation students on the basis of the audiovisual material bringing them in touch with the real-life situations of their future profession.

The aim of our research was to verify the proposed hypothesis about the effectiveness of the use of audiovisual material in combination with a system of training activities for shaping the aviation subject matter competence of aviation translation students, and to test the developed content-oriented structure of translation students’ ASMC in real academic conditions. The achievement of this aim involved development of the research methodology and experiment procedure, selection of the audiovisual material for the experimental teaching and its use in class, design of accompanying training activities and the testing of the proposed content-oriented structure.

2. RESEARCH METHODS

The research hypothesis was verified in a *pedagogical experiment* conducted at the National Aviation University, Ukraine, in the framework of the course “Translation in the sphere of aviation” for students majoring in Philology. “Translation in the sphere of aviation”

is one of the elective courses designed as an English for Specific Purposes (ESP) course for the third-year Bachelor students. The course has 7,5 ECTS credits.

Participants

The participants were 69 third-year Bachelor students (three academic groups) majoring in Philology (Germanic Languages and Literatures (including translation)). For the purposes of the experiment, one academic group was chosen as experimental (EG), the second as alternative (AG) and the third one as control (CG). Experimental audiovisual method was used in EG, AG students were taught with an alternative project method, and students of CG received traditional training.

Data Collection and Analysis

The pedagogical experiment consisted of four stages: 1) initial testing; 2) experimental training course; 3) final testing; 4) students' survey.

At the initial testing stage, students were offered a text to translate in order to determine the level of their basic knowledge and skills in English-Ukrainian aviation translation. The teachers analyzed students' works using the comparative *quantitative and qualitative analysis*.

At the training stage, each of the three groups regularly received for their home translation aviation subject matter (SM) texts selected according to the course syllabus. The subject matter of the texts embraced the history of aviation, ICAO, world-leading aviation companies and aircraft manufacturers, aircraft structural units, aircraft flight instruments and systems, handling and maintenance, airport operation and services. In class, students of the three groups worked differently. In the EG, the focus was on the corresponding audiovisual material used in combination with a system of specifically designed exercises. AG students were doing their individual research projects in the form of either a presentation or a short report before their home translation. The CG students did only traditional activities from the course book. Then, teachers assessed students' home translations according to two indicators: terminology-significant and translation-oriented. The *linguistic and translation analysis* made it possible to determine the degree (deep/superficial) of students' understanding of the original texts. The *quantitative analysis* was used to establish an appropriate ratio of the outcomes within the initial and final stages of the training course.

At the final stage, students were again offered to translate a control aviation SM text to see their level of achieved knowledge and skills in English-Ukrainian aviation translation.

Finally, a specially designed online *survey* was conducted to get feedback on the experiment participants' experience. The questionnaire was given to the students on the online website <https://www.surveymonkey.com> at the final stage of the experimental course. The results were automatically collected. The survey allowed respondents to highlight issues that were the most important for them as well as to pinpoint their difficulties and challenges during the course.

Because of the unequal number of students in each group, the data obtained in the study were converted into non-parametric statistical indicators such as percentage. This helped to analyze the students' academic success and answers to the questionnaire questions as well as to draw conclusions.

3. RESULTS AND DISCUSSION

3.1. Experimental teaching results

The knowledge and skills obtained by the students of EG, AG, and CG after the experimental training course constituted their *ASMC in the field of English-Ukrainian aviation translation*, represented by these indicators:

– *Terminology-significant* – students’ knowledge of the aviation terminology database; their ability to operate with the specific aviation terms, abbreviations and notions; students’ lexicographic awareness and ability to use electronic/printed dictionaries and vocabularies in translating aviation SM texts;

– *Translation-oriented* – students’ ability to perform translation of aviation SM texts in accordance with grammar, semantic and stylistic rules of English radiotelephony communication, technical and airworthiness documentation etc.; students’ expertise in the aviation sphere as the precondition for adequate English-Ukrainian aviation translation.

The data presented in Table 1 show the dynamics of the ASMC development demonstrated by the students of the EG, AG, and CG under these two indicators.

Table 1

Comparative data demonstrating the aviation subject matter competence development in English-Ukrainian translation achieved by the students (%)

Stage	Groups	ECTS grading scale					
		Indicator	A	B	C	D	E
1	2	3	4	5	6	7	8
Initial	EG	<i>Terminology-significant</i>	11.54	19.23	30.77	26.92	11.54
		<i>Translation-oriented</i>	7.69	11.54	34.62	34.62	11.54
	Total (EG)		9.62	15.38	32.69	30.77	11.54
	AG	<i>Terminology-significant</i>	5.56	22.22	33.33	33.33	5.56
		<i>Translation-oriented</i>	16.67	16.67	22.22	33.33	11.11
	Total (AG)		11.11	19.45	27.78	33.33	8.34
	CG	<i>Terminology-significant</i>	12.00	12.00	36.00	36.00	4.00
		<i>Translation-oriented</i>	8.00	16.00	32.00	32.00	12.00
	Total (CG)		10.00	14.00	34.00	34.00	8.00
Final	EG	<i>Terminology-significant</i>	26.92	30.77	30.77	11.54	-
		<i>Translation-oriented</i>	23.08	26.92	34.62	7.69	7.69
	Total (EG)		25	28.85	32.69	9.62	3.85
	DIFFERENCE		+ 15.38	+ 13.47	0	- 21.16	- 7.69
	AG	<i>Terminology-significant</i>	27.78	27.78	22.22	22.22	-
		<i>Translation-oriented</i>	16.67	22.22	27.78	27.78	5.56
	Total (AG)		22.22	25.00	25.00	25.00	2.78
	DIFFERENCE		+ 11.11	+ 5.56	- 2.78	- 8.67	- 5.56
	CG	<i>Terminology-significant</i>	16.00	20.00	44.00	16.00	4.00
		<i>Translation-oriented</i>	12.00	12.00	40.00	32.00	4.00
	Total (CG)		14.00	16.00	42.00	24.00	4.00
	DIFFERENCE		+ 4.00	+ 2.00	+ 8.00	- 10.00	- 4.00

The students’ academic success was assessed in compliance with the ESTC grading scale: “A” (90 – 100 points), “B” (82 – 89 points), “C” (75 – 81 points), “D” (66 – 74 points), and “E” (60 – 65 points).

According to the results of the final translation test, 25% of the EG students got the highest excellent “A” grade (9.62% before the experimental training course), 61.54% of the EG students got good “B” and “C” grades (48.07% before the experimental training course),

13.47% of the EG students got “D” and “E” (satisfactory) grades (42.31% before the experimental training course).

The AG students had the following final results: “A” – 22.22% (compared to the initial 11.11%), “B” and “C” – 50.00% (compared to the initial 47.23%), “D” and “E” – 27.78% (compared to 41.67%).

In the CG, the number of the students who got an excellent “A” grade increased only by 4%, those with “B” and “C” increased by 10%, and those with satisfactory “D” and “E” grades decreased by 14%.

The EG students showed the most notable difference in “A” (+ 15.38%), “B” and “C” (+ 13.47%) grades. These data give us the ground to assume that the EG students improved their professional competence in the field of aviation translation as a result of the proposed experimental approach (using audiovisual material for ASMC formation), which facilitated students’ translation activity and motivated them to productive learning in the framework of the experimental training. The AG students showed quite sufficient results but a bit lower than the EG students, whereas the CG students’ academic progress proved to be the lowest.

3.2. Survey results

After completing the training course “Translation in the sphere of aviation”, the students filled in an online questionnaire. The questions were mainly about the difficulties the students encountered while translating aviation SM texts.

The first question was: *How understandable was each text for you after the first reading? (Rank from 1 to 10).* The results are presented in Figure 1.

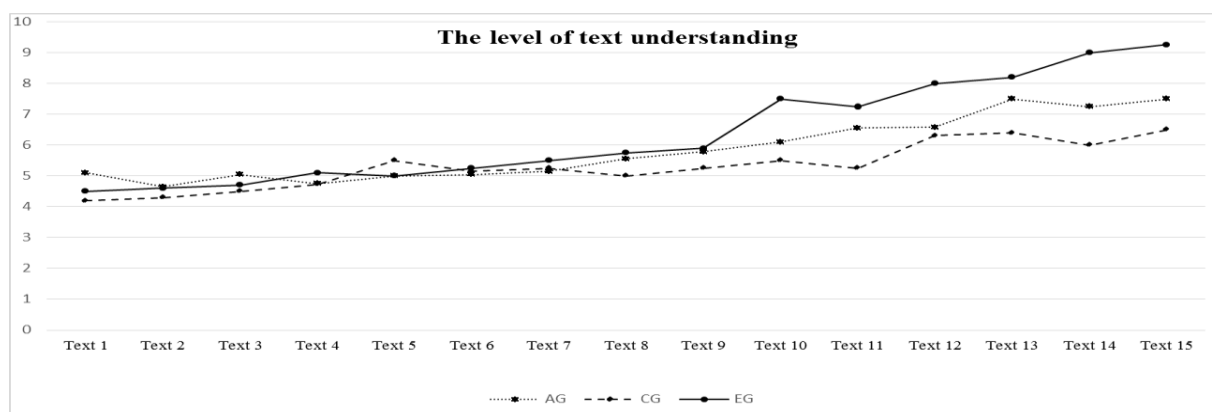


Figure 1. Students’ answers to the question: “How understandable was each text for you after the first reading?”

Having almost the same level of understanding at the initial stage, each group showed different outcomes at the end of the course, with EG students coming to the fore. According to Figure 1, EG students improved their understanding by 4.75 points at the end of the course; AG students finished the course with the difference in 2.4 points; CG students had final results of 2.3 points better than at the start.

The second question was aimed at finding out the main obstacles that limited students’ understanding of the texts under three criteria: 1) syntax and grammar; 2) stylistics; 3) lack of subject knowledge. Figure 2 illustrates the results at the final stage of the training course.

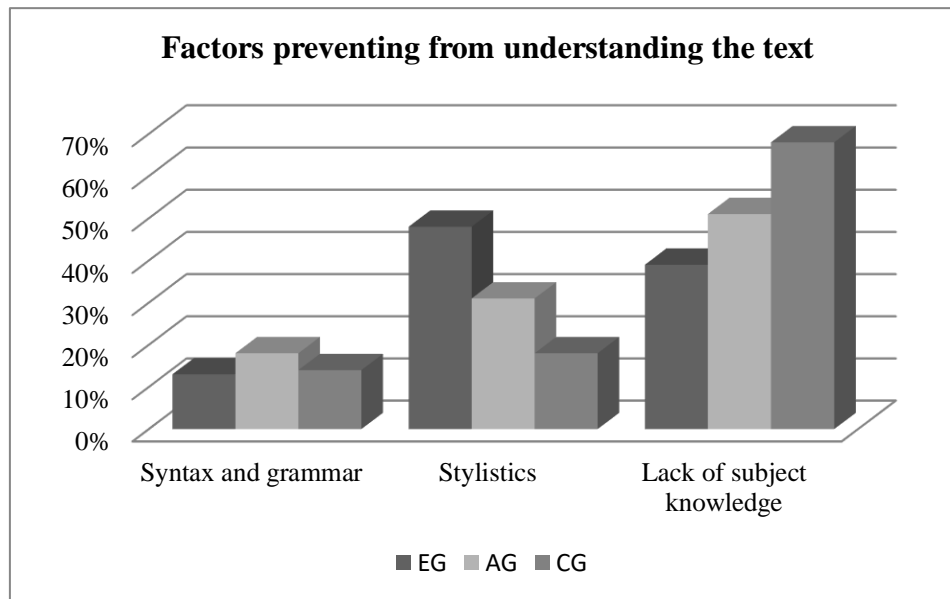


Figure 2. Students' answers to the question: "What prevented you from the full understanding of the text?"

As shown in Figure 2, all the groups mentioned *lack of subject knowledge* as the main factor that prevented them from understanding aviation SM texts. However, the EG students showed the lowest level of this factor compared to the AG and CG students.

Question 3 was *Where did you look up the terms while translating the aviation SM texts?* 59% of the respondents preferred looking for the aviation terms in their own vocabularies which they made up from previously watched aviation videos and translated aviation SM texts; 23% looked up the unknown terms on the aviation websites and forums; 12% did a Google-picture search; and 6% translated at random.

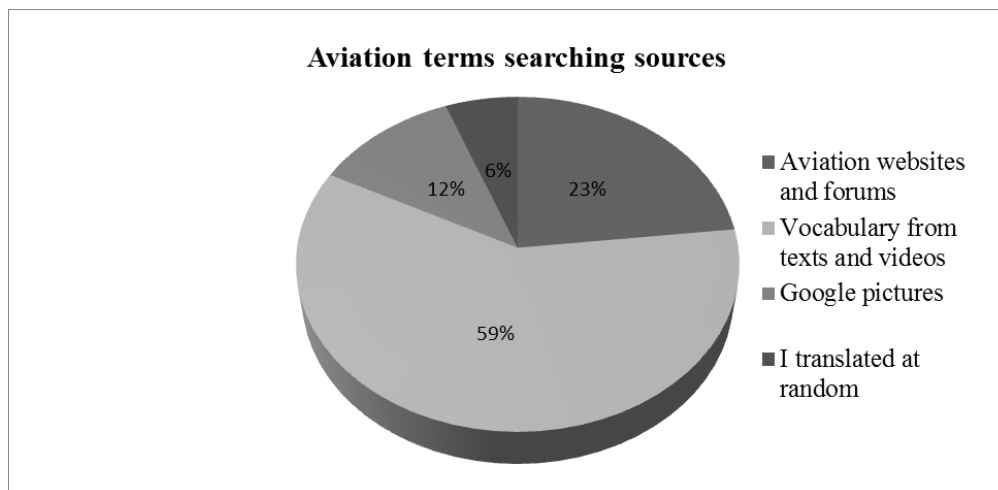


Figure 3. Students' answers to the question: "Where did you look up the terms while translating the aviation SM text?"

Question 4 was *What classroom activity do you consider the most effective for acquiring aviation SM knowledge?* In their answers, the students mentioned *watching SM videos* as the most helpful classroom activity for acquiring aviation SM knowledge, followed by *doing research projects*. Such activities as *reading and discussion of students' individual*

translations as well as *doing exercises from the course book* did not look attractive to the students (see Figure 4).

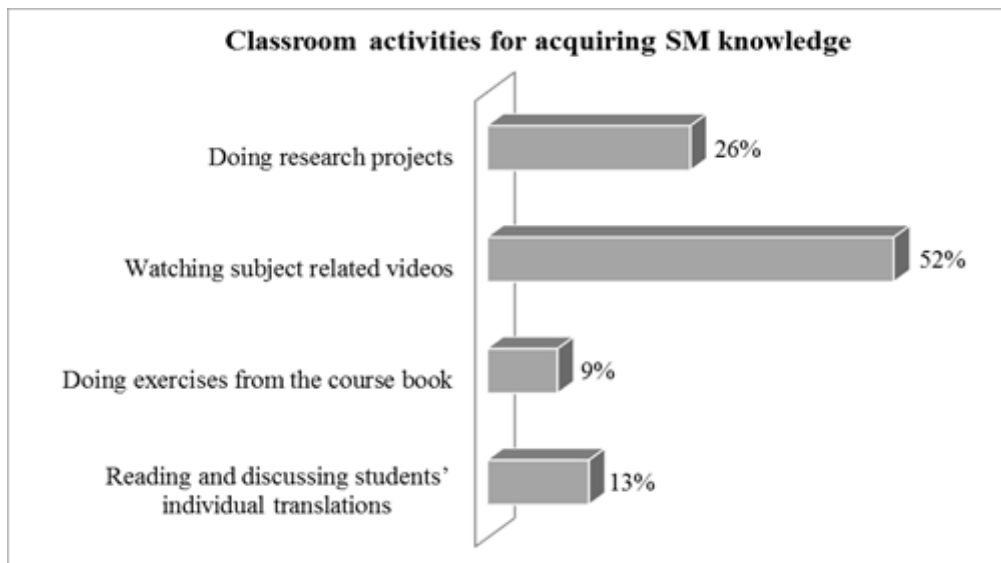


Figure 4. Students' answers to the question: "What classroom activity do you consider the most effective for acquiring aviation SM knowledge?"

The EG students were asked a specific question concerning the implementation of audiovisual material during their training course "Translation in the sphere of aviation". Figure 5 shows that the experimental audiovisual methodology was enthusiastically supported by the EG students. Totally, 78% of the EG students mentioned the audiovisual material as *extremely* and *very* helpful for translating aviation SM texts; 22% of the students answered that it was *somewhat* helpful for them, and no students chose the options *not so helpful* and *not at all helpful*.

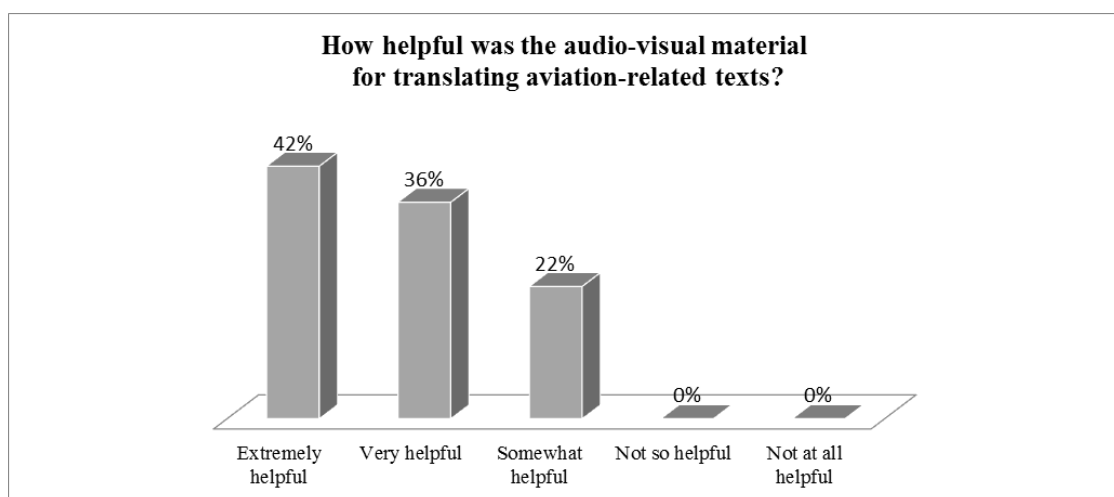


Figure 5. The EG students' answers to the question: "How helpful was the audiovisual material for your translation of aviation SM texts?"

The last question *How likely are you to watch other aviation SM videos at home?* checked the EG students' level of motivation to continue their self-learning following the audiovisual methodology. The results were more than satisfying. The average level of

motivation reached 7.5 points out of 10. This proves that students are highly interested in the sphere of aviation in general and are ready to improve their professional competence in aviation translation.

3.3. Modelling typology of activities for teaching SM in the course of aviation translation

The academic success of the EG students turned out to have been stipulated by the use of the competence-oriented and context-centered traditional and interactive *audiovisual classroom activities*. We developed the modelling typology of activities for teaching SM in the course “Translation in the sphere of aviation”, focusing on terminological, contextual, and motivational aspects. Let us consider some of them.

Type 1. Exercises for practicing terminology and translator’s memory training (memorization and reproduction of word groups or text fragments based on the audiovisual material).

Activity 1. Vocabulary boost

Procedure: The teacher introduced the title of the video “*Qantas 32. Titanic in the sky*”. Then the teacher presented the key aviation terms and notions related to the video and showed students some pictures from the video in the form of a digital PowerPoint presentation. It included the picture of an aircraft A380, FCU (*Flight Control Unit*), a jet engine, Qantas livery, and more. The vocabulary consisted of aviation terms and notions like *throttle; flight deck; Primary Flight Display; Navigation Display; attitude indicator, airspeed and altitude indicators; heading indicator; back-up instruments; check-list procedure; VI; cleared for take-off; engine failure, to cross-feed the engine, etc.* Working with a partner, students predicted the content of the video based on the words and pictures. The teacher provided the subject vocabulary on the video, explaining the meaning and translation of the words in case they were unknown to the students.

Activity 2. Snow-ball

Procedure: Before watching, students were provided with the pictures from the video “*Air crash investigation: Flying on empty*”. The first student chose one picture and made up a sentence with it. Every next student repeated the sentences made up by the students before him/her and introduced their new sentence to continue the story. Thus, the students created a scenario of the film together. When the “snowball” became too big to reproduce, one student from the group was asked to act as a translator and break it.

Objectives: Activities like these enrich students’ vocabulary on the given topic and their ability to think logically and establish a link between the words/pictures presented and the content of the video. They stimulate the ability to acquire information audiovisually. Besides, they develop communicative skills and enhance students’ motivation to watch the video.

Type 2. Exercises for speech fluency development in aviation domain (“silent video” pre-watching discussion, picture description, etc.)

Activity 1. Silent video

Procedure: The teacher asked students to watch the first minute of the video “*Air Crash Investigation. The Invisible Plane*” with the sound turned off and take some notes while watching it. After that, they commented on what they had just seen, using the active vocabulary obtained from the previous activity. After the performances, students watched the scene with the sound on and decided who was the funniest or the nearest to the original.

Objectives: This type of activity allows students to get involved in the video while practicing the SM vocabulary. Moreover, it helps to arise students’ interest, stimulate thought, and develop skills of anticipation as they were trying to link the previous content with the unknown context. It helps to keep students interested in the video until the end.

Activity 2. Picture description

Procedure: Students were asked to describe the aviation SM picture “*Aircraft in a Snowstorm*” using the plan:

- ✓ *Introduce the main idea of what is portrayed in the picture (use the opening phase to give a general idea of what you see);*
- ✓ *Go on to first describe the main objects or characters;*
- ✓ *Then describe the rest of what is in the picture;*
- ✓ *Describe the overall atmosphere in the given picture;*
- ✓ *Finally, make the conclusion (“link” your story to any of the aviation-related problems you know).*

Objective: while describing the picture students not only demonstrate relevant vocabulary and grammar but also get involved in real-life situations from the sphere of aviation.

Type 3. Exercises aimed at focusing attention on particular SM information mentioned in the audiovisual fragment (filling in the gaps, completing the sentences, matching, and true/false while-watching activities).

Activity 1. Focus on details

Procedure: In this activity, the students filled in spaces in a given form, using the information provided in the video “*Air Crash Investigation – Air France Concorde*”. It included both verbally presented information such as *the conversation between the pilots in the cockpit and radiotelephony* and the information presented visually e.g. *cockpit design, flight instruments data, crew flying performance, and situational awareness*.

Activity 2. Attention test

Procedure: Students watched a part of the video “*Air Crash Investigation – Air France Concorde*” and then got a task to match the fragments of speech with the character who said it.

Objectives: This type of activity is focused on checking students’ attention while watching the video. It also improves listening skills.

Type 4. Exercises for mastering aviation translation/interpreting skills (practice in written, oral or summary translation/interpreting of an aviation SM audiovisual material)

Activity 1. Consecutive interpreting practice

Procedure: The active SM vocabulary was provided by a teacher before watching the video “*Private Pilot Tutorial. Aircraft Structure*”. Then the teacher played the video by sections (1-2,5 minutes) and made pauses. Students translated the fragment from English into Ukrainian consecutively and used their translation notes.

Activity 2. Summary interpreting practice

Procedure: The teacher played the video of aviation breaking news “*Belly landing*” (5 minutes) with the sound on and picture off, so that students could hear only the speech but were unable to see the action. Thus, they were absolutely concentrated on the audio message and translation note-taking. In the end, the students were asked to translate the news fragment from English into Ukrainian.

Activity 3. Whispering interpreting practice

Procedure: Firstly, students were asked to watch the video “*Turbulence*” up to the end and practice the active vocabulary. Then they worked in pairs and did whispering interpreting from English into Ukrainian, taking turns every 1 minute.

Activity 4. Translation practice

Procedure: Students were asked to watch the video “*Top 10 Future Aircraft*” and write down the script for it. Then, students swapped the copybooks and translated the text from English into Ukrainian in writing. Finally, they swapped back and corrected mistakes.

Activity 5. Note-taking

Procedure: Students were divided into pairs. One student in each pair watched the video “*What is a Sonic Boom*” and made translation notes. Then s/he gave the notes to the other student who interpreted the message only by using the notes of his/her companion. In the case of the cul-de-sac situation, the student, who watched the video, could only prompt by drawing pictures. Then students watched the video one more time and determined the winners who were the nearest to the original.

Objectives: The idea of this type of activities is to train all types of interpreting/translation and develop listening, speaking and writing skills.

Type 5. Exercises for students’ motivation (aimed at arising students’ interest in learning aviation English and capturing their attention on the particular topic under discussion).

Activity 1. Discussion

Procedure: The teacher stopped the video “*Miracle on the Hudson*” 10 minutes to the end and asked the students to predict the end of the story. Then the teacher started asking for students’ opinions on the following issues:

- ✓ *What would you do if you were in the place of the pilot?*
- ✓ *Do you think the crew acted professionally?*
- ✓ *What helped them to avoid the crash?*
- ✓ *What do you think about making decisions in emergency situations?*
- ✓ *What precautions should be taken to avoid incidents?*

Objectives: This type of activities improves students’ communicative skills and motivates them to watch aviation SM videos in the future.

Activity 2. Role-play game

Procedure: Students were asked to take the role of a certain character from the video “*Miracle on the Hudson*” and simulate the engine failure emergency situation onboard. The suggested roles were *the captain, first officer, flight instructor, flight attendant, air traffic controller, passengers, and maintenance support crew*.

Objectives: Role-play involves students as active participants. As each student plays the assigned role, s/he becomes more and more involved in the communicative situation. Both the first and the second activities have a communicative aim and motivate students to study aviation in general. They also help to develop students’ cognitive and research activity as well as to solidify the obtained knowledge of aviation SM.

3.4. Content-oriented structure of aviation translation students’ ASMC

On the basis of the theoretical and practical outcomes of our experimental teaching, we developed a content-oriented structure of aviation translation students’ ASMC in the framework of English-Ukrainian aviation translation (Figure 6).

The proposed content-oriented structure proved to be methodologically sound and effective in terms of students’ progress. The experience of teaching aviation translation on the basis of the methodology embodied in the structure has given us convincing evidence that audiovisual material can serve a major means of visualization which visibly enhances the formation of aviation translation students’ subject matter competence, essential for their future work. The adequately chosen SM-related audiovisual material offers teachers and students unique opportunities for shaping professionally relevant competences through a wide range of various training activities, bringing in-class training close to real-life situations of students’ future profession.

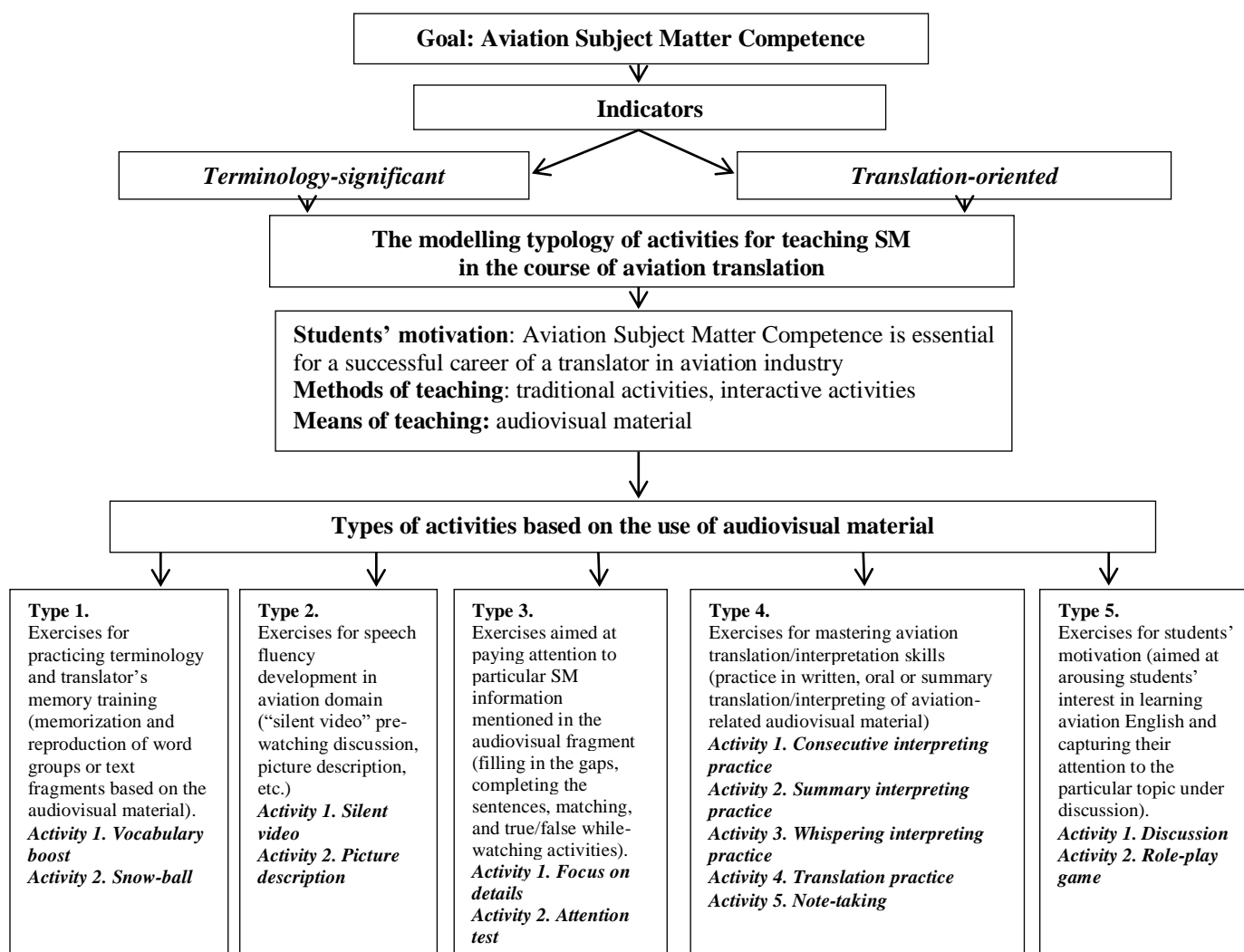


Figure 6. A content-oriented structure of aviation translation students' ASMC in the framework of English-Ukrainian aviation translation

4. CONCLUSIONS AND PROSPECTS FOR FURTHER RESEARCH

Aviation subject matter competence is a core component of the complex of professional competences of a translator working in the aviation industry, a basis for successful professional performance. The formation of aviation subject matter competence in the university students cannot be effective without reliance on the adequately selected, content-oriented audiovisual material. The content-oriented structure of aviation translation students' ASMC in the framework of English-Ukrainian aviation translation featured in this research comprises a motivation-driven system of specifically developed training activities based on subject matter audiovisual material, targeted at the formation of ASMC and guided by two major indicators, terminology-significant and translation-oriented. The rationality of the proposed structure and its pedagogical effectiveness have been proved experimentally.

The cornerstone of the proposed approach is the aviation subject matter audiovisual material, which, in combination with a system of training activities, visibly enhances the formation of aviation translation students' subject matter competence – the basis for their adequate performance as translators/interpreters in the field of aviation.

The positive results obtained in the course of the experimental teaching include students' improved skills in the use of aviation terminology, their increased lexicographic awareness, more conscious use of various reference materials while translating, better grammatical, semantic and stylistic accuracy in keeping with the rules of radiotelephony communication and aviation standards.

The initial hypothesis that audiovisual material combined with specially developed activities facilitates the formation of aviation translation students' ASMC has been confirmed.

The proposed content-oriented structure of aviation translation students' ASMC in the framework of English-Ukrainian aviation translation is not final in every detail, it is going to be further improved on the basis of teaching experience to more adequately meet the students' and employers' needs. In particular, the prospects of further research will be connected with the development and testing of new training activities and teaching techniques aimed at the formation of aviation translation students' subject matter competence, including those which can address the specificity of e-learning.

REFERENCES (TRANSLATED AND TRANSLITERATED)

- [1] L. Crawford, "Language and literacy learning in multicultural classrooms," Boston: Allyn & Bacon, 475 p., 1993. (in English)
- [2] M. Rudina, "Students-philologists' training at technical universities: the relevance of an integrative approach," *Osvita ta pedahohichna nauka – Education and pedagogical science*, vol. 2, no. 171, pp. 32-42, 2019. doi:[https://doi.org/10.12958/2227-2747-2019-2\(171\)-32-42](https://doi.org/10.12958/2227-2747-2019-2(171)-32-42). (in Ukrainian)
- [3] T. Rhodes, Ed. *Assessing Outcomes and Improving Achievement: Tips and Tools for Using Rubrics*. Association of American Colleges and Universities, 2010. (in English)
- [4] O. Kovtun, N. Khaidari, T. Harmash, N. Melnyk, S. Gnatyuk, "Communication in civil aviation: Linguistic analysis for educational purposes," *CEUR Workshop Proceedings*, vol. 2588, 2019. doi:<http://ceur-ws.org/Vol-2588/paper40.pdf>. (in English)
- [5] M. Rugevičius, A. Kairys, R. Čepienė, A. Liniauskaitė, L. Brazdeikienė, P. Žakaitis, "The Changes of University Students Academic Motivation over Time: the Relationship with Academic Achievement, Satisfaction with Studies and Psychological Well-Being," *Pedagogika*, vol. 137, no. 1, pp. 5-24, 2020. doi: <https://doi.org/10.15823/p.2020.137.1>. (in English)
- [6] N. Holub, To the problem of subject competence in the Ukrainian language at general secondary education institutions. *Ukrainska mova i literatura v shkoli*, vol.1, pp. 2-5, 2018. (in Ukrainian)
- [7] L. Latshev, V. Provotorov, The structure and content of the translators' training at the linguistic university: study guide. NVI-TEZAURUS, 2001. (in English)
- [8] Ş. Seçer, M. Şahin, B. Alci, "Investigating the Effect of Audio Visual Materials as Warm-up Activity in Aviation English Courses on Students' Motivation and Participation at High School Level," *Procedia – Social and Behavioral Sciences*, vol. 199, pp. 120-128, 2015. doi:<https://doi.org/10.1016/j.sbspro.2015.07.495>. (in English)
- [9] T. Khomutova, Language for specific purposes: Linguistic aspect. *Izvestia RGPU – Proceedings of the Russian State Pedagogical University named after Herzen*, vol. 71, pp. 96-106, 2008. (in Russian)
- [10] J. Pearson, *Terms in Context*. Amsterdam: Philadelphia, 1998. (in English)
- [11] T. Hutchinson, A. Waters, "English for Specific Purposes: A learner-centered approach," Cambridge University Press, 1987. (in English)
- [12] V. Ivanenko, Innovative methods in teaching English for Specific Purposes. *Colloquium Journal*, vol. 8, no. 60, pp. 110-112, 2020. doi:<https://doi.org/10.24411/2520-6990-2019-11553>. (in Ukrainian)
- [13] D. Douglas, "Assessing languages for specific purposes", 3rd ed., Cambridge University Press, 328 p., 2000. (in English)
- [14] U. Knoch, "Using subject specialists to validate an ESP rating scale: The case of the International Civil Aviation Organization (ICAO) rating scale," *English for Specific Purposes*, vol. 33, no. 1, pp. 77–86, 2014. doi:<https://doi.org/10.1016/j.esp.2013.08.002>. (in English)
- [15] H. Kim, C. Elder, "Understanding Aviation English as a lingua franca," *Australian Review of Applied Linguistics*, vol. 32, no. 3, pp. 23.1-23.17, 2009. doi:<https://doi.org/10.2104/ara10923> (in English)
- [16] L. Zhizhuo, Zh. Min, Zh. Yali, "The Translator's Subjectivity in Aviation English Translation," *International Journal of Applied Linguistics and Translation*, vol. 4, no. 3, pp. 46-51, 2018. doi:<https://doi.org/10.11648/j.ijalt.20180403.11>. (in English)

- [17] D. Estival, C. Farris, B. Molesworth, "Aviation English. A lingua franca for pilots and air traffic controllers," 1st ed., London: Routledge, 2016. (in English)
- [18] S. Gollin-Kies, D. R. Hall, S. H. Moore, "Language for Specific Purposes," Palgrave Macmillan, 2015. doi:<https://doi.org/1057/9781137500762>. (in English)
- [19] E. Wagner, "The Effect of the Use of Video Texts on ESL Listening Test-Taker Performance," *Language Testing*, vol. 27, pp. 493-513, 2010. doi:<https://doi.org/10.1177/0265532209355668>. (in English)
- [20] I. Çakır, "The use of video as an audio-visual material in foreign language teaching classroom," *Turkish Online Journal of Educational Technology*, vol. 5, no 4, pp. 67-72, 2006. (in English)
- [21] V. Gopal, "Importance of Audio-Visual in teaching methodology," Mahourashtra, India, 2010. (in English)
- [22] S. H. Kurbanova, "The importance of interactive teaching methods," *Molodoi uchonyi – Young Scholar*, vol. 19, no. 123, pp. 362 – 364, 2016. (in English)
- [23] D. Ashaver, S. M. Igyuve, "The Use of Audio-Visual Materials in the Teaching and Learning Processes in Colleges of Education in Benue State-Nigeria," *IOSR Journal of Research & Method in Education (IOSR-JRME)*, vol. 1, no 6, pp. 44-55, 2013. doi:<https://doi.org/10.9790/7388-0164455>. (in English)
- [24] F. Anzaku, "Library Experts Speaks on Audio-Visual Material," presented at the United Nations Educational, Scientific and Cultural Organization (UNESCO) World Day for Audio-Visual Heritage, Lafia, Nigeria, 2011. (in English)
- [25] E.U. Eze, "Effect of Instructional Materials on the Academic Performance of Junior Secondary School Students in Social Studies," Ph.D. dissertation, Imo State University-Nigeria, 2005. (in English)
- [26] R. Stitt, "The Importance of Subject Matter Expertise in Translation," in *Ulatus*, Feb., 8, 2016. doi:<https://ulatus.com/translation-blog/the-importance-of-subject-matter-expertise-in-translation/> (in English)

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АУДІОВІЗУАЛЬНИЙ МАТЕРІАЛ ЯК ЗАСІБ ФОРМУВАННЯ АВІАЦІЙНОЇ ПРЕДМЕТНОЇ КОМПЕТЕНТНОСТІ СТУДЕНТІВ-ПЕРЕКЛАДАЧІВ АВІАЦІЙНОЇ ГАЛУЗІ

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Анотація. У статті розглянуто проблему використання аудіовізуального матеріалу з метою формування авіаційної предметної компетентності студентів-перекладачів авіаційної галузі. Проведено педагогічний експеримент, у ході якого досліджено ефективність експериментального навчального комплексу, у якому поєднано аудіовізуальний матеріал та спеціально розроблені вправи, спрямовані на формування термінологічно значущих знань студентів у галузі авіації як підґрунтя адекватного технічного перекладу. Отримано позитивні результати: у студентів зросли вміння оперувати конкретними авіаційними

термінами, аббревіатурами і поняттями; підвищилась лексикографічна обізнаність студентів; удосконалились уміння використовувати електронні / друковані словники при перекладі авіаційних текстів, перекладати авіаційні тексти відповідно до граматичних, семантичних і стилістичних правил ведення радіотелефонного зв'язку, технічну та льотну документацію тощо. Підтверджено висунуту гіпотезу, що аудіовізуальний матеріал та спеціальні вправи сприяють формуванню авіаційної предметної компетентності студентів, яка є передумовою адекватного англо-українського авіаційного перекладу. На засадах теоретичних передумов навчання авіаційного перекладу в університеті розроблено змістовоорієнтовану структуру специфічної авіаційної предметної компетентності майбутніх перекладачів у межах англо-української мовної пари. Отримані результати можуть бути релевантними стосовно й інших мовних пар. Перспективним вважаємо подальше дослідження, розробку та апробацію нових видів навчальної діяльності та методик викладання, спрямованих на формування предметної компетентності студентів-перекладачів авіаційної галузі, зокрема тих, що можуть застосовуватись в умовах дистанційного навчання.

Ключові слова: аудіовізуальний матеріал; авіаційна предметна компетентність перекладача; студенти-перекладачі авіаційної галузі; змістовоорієнтована структура; англо-український переклад; мова для спеціальних цілей.

АУДИОВИЗУАЛЬНЫЙ МАТЕРИАЛ КАК СРЕДСТВО ФОРМИРОВАНИЯ АВИАЦИОННОЙ ПРЕДМЕТНОЙ КОМПЕТЕНТНОСТИ СТУДЕНТОВ- ПЕРЕВОДЧИКОВ АВИАЦИОННОЙ ОТРАСЛИ

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Аннотация. В статье рассмотрена проблема использования аудиовизуального материала с целью формирования авиационной предметной компетентности студентов-переводчиков в авиационной отрасли. Проведен педагогический эксперимент, в ходе которого исследована эффективность экспериментального учебного комплекса, в котором объединены аудиовизуальный материал и специально разработанные упражнения, направленные на формирование терминологически значимых знаний студентов в отрасли авиации как основа адекватного технического перевода. Получены позитивные результаты: у студентов повысились умения оперировать конкретными авиационными терминами, аббревиатурами и понятиями; повысилась лексикографическая осведомленность студентов; усовершенствовались умения использовать электронные/ печатные словари при переводе авиационных текстов, переводить авиационные тексты в соответствии с грамматическими, семантическими и стилистическими правилами ведения радиотелефонной связи, техническую и летную документацию и т.д. Подтверждена выдвинутая гипотеза, что

аудиовизуальный материал и специальные упражнения способствуют формированию авиационной предметной компетентности студентов, которая является предпосылкой к адекватному англо-украинскому авиационному переводу. На основе теоретических предпосылок обучения авиационному переводу в университете разработана содержательно-ориентированная структура специфической авиационной предметной компетентности будущих переводчиков в рамках англо-украинской языковой пары. Полученные результаты могут быть релевантными по отношению к другим языковым парам. Перспективным считаем дальнейшее исследование, разработку и апробацию новых видов учебной деятельности и методик преподавания, направленных на формирование предметной компетентности студентов-переводчиков в авиационной отрасли, в том числе тех, которые смогут применяться в условиях дистанционного обучения.

Ключевые слова: аудиовизуальный материал; авиационная предметная компетентность переводчика; студенты-переводчики авиационной отрасли, содержательно-ориентированная структура; англо-украинский перевод; язык для специальных целей.



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