

# Development of Foreign-Language Listening Comprehension Skills of Military School Cadets

Ekaterina Otarova  
MESC AF «N.E. Zhukovsky and Y.A.  
Gagarin Air Force Academy»  
Voronezh, Russia  
ekaterina.otarova@mail.ru  
<http://orcid.org/0000-0000-0000-0000>

**Abstract** — In the paper questions of how to teach foreign languages to military school cadets are considered. Special attention is paid to the development of foreign language listening comprehension skills on the basis of the author's learning and teaching support kit which includes textbooks, workbooks, electronic textbooks and teacher's books. Electronic textbooks with control and self-checking elements contain audio and video fragments and sets of exercises created for the development of listening comprehension skills. The importance of use of the author's learning and teaching support kit components is emphasized for the most effective improvement of listening comprehension skills of military school cadets.

**Keywords** — *cadets, electronic textbook, foreign language, listening comprehension skills, training, workbooks*

## I. INTRODUCTION

At the present stage of development of military pedagogics, the special importance is gained by development of foreign-language communicative competence of future military engineers. Special attention is paid to the development of foreign language listening comprehension skills [1].

Despite the status of the problem, many questions still remain unsolved. The relevance of development of listening comprehension skills (LCS) is proved also by an unsatisfactory level of foreign language knowledge of military school cadets whose specialty is not a foreign language. In our opinion, it is possible to explain this situation with the following reasons: 1) underestimation of formation importance of foreign-language LCS within professional education, in particular, for future military engineers; 2) tendency to reduction of classroom lessons; 3) use of mainly traditional educational technologies; 4) deficiency of learning and teaching support kits for the development of LCS [2]. In this regard there is an insistent need of improvement of a technique of a foreign-language LCS teaching with use of modular teaching principles and application of electronic textbooks (ETB) with elements of control and self-checking.

It should be noted that, in connection with changing conditions of military school education and reduction of

classroom lessons, problems of teaching of foreign-language LCS have become relevant again, especially within competence-based approach at which cadets have an opportunity to choose independently an individual training trajectory and to control efficiency of their own educational actions [3]. These reasons play an important role during out-of-class time when cadets can do tasks independently using ETB.

Taking into consideration the fact that Internet access is forbidden for military school cadets' development of foreign-language ETB gains an increasing importance.

## II. MATERIALS AND METHODS (MODEL)

Nowadays the problem solution of the foreign-language LCS teaching demands a new qualitative approach to supporting educational process. From our point of view, this problem can be solved by development of ETB with elements of control and self-checking organized according to the principles of modular training [4]. Computer-assisted training systems can be integrated into author's ETB. These systems allow integrating pedagogical tests in the automated mode that can simplify and optimize significantly the teacher's work when carrying out foreign language lessons, allows giving more interesting classes, and increases effectiveness of foreign language training in general [5].

Thus, the relevance of a subject of a research is caused, on the one hand, by rather high requirements to level of proficiency in communicative competence in cadets of non-language military schools and insufficient readiness of a construction and application technique of ETB.

Importance of a subject defines a main objective of the research which consists in development of a technique of the foreign-language LCS teaching in the professional focused environment of non-language military schools.

The LCS teaching of cadets of non-language military schools acts as an object of this research.

The research object is a technology of the creation and application of ETB for the development of foreign-language LCS of cadets [6].

Private scientific tasks:

1. The analysis of scientific and methodical studies on problems of the LCS teaching.
2. The organization of materials for the professional focused LCS teaching in the conditions of military schools.
3. The development of a subsystem of exercises for LCS teaching.
4. The developing of ETB in German for an improvement of foreign-language LCS of military school cadets.

In the scientific paper we use the following research methods:

- cognitive generalizing: studying of domestic and foreign literature on a research problem;
- diagnostic: questioning of cadets, conversations with teachers, observation, testing of cadets;
- experimental: methodical experiment, measurements [7];
- mathematical: ranging, comparison, statistical processing of experimental data.

### III. RESULTS AND DISCUSSION

The scientific novelty of a research is that:

- linguo-didactic bases of development of foreign-language LCS are revealed;
- specifics of development of foreign-language LCS of cadets in the professional focused environment of the military schools are investigated;
- a technique of creation of modular teaching of foreign-language LCS of cadets of non-language military schools on the basis of ETB with self-checking elements is developed and theoretically proved.

Theoretical importance of a research consists in the offered technology of development of ETBs and their introduction in educational process when studying German that allows forming effectively communicative competence of military schools cadets. This technology can be used also during creation of ETB in other foreign languages taking into account specially developed sets of exercises.

Practical value of a research consists in the developed technology of creation of ETBs and their active use when teaching both at lessons and training during independent activity that allows forming effectively foreign-language communicative competence of cadets on an individual trajectory of training taking into account the differentiated approach [8, 12].

Besides ETB with elements of control and self-checking, for improvement of a technique of future military engineers teaching we developed a workbook which is a part of the author's learning and teaching support kit [9]. The workbook includes an active vocabulary of texts, authentic materials, lexical and grammatical exercises which are expedient for carrying out in written form for the best digestion of studied

material; texts annotation and summarizing tasks and also exercises to audio and video fragments. Use of this workbook allows saving significantly time when performing tasks, to intensify process of the foreign language teaching taking into account specifics of language material and also promotes more effective digestion of the studied material [10, 11]. Use of this workbook does not assume a refusal of traditional notebooks, however it is additional and expedient for using during classroom lessons (in particular, if there is no possibility of the ETB application), and at the organization of independent activity of military school cadets.

The author's ETB for cadets of military schools contains the patented "LexikTextWeb-creation of interactive elements in Web pages for training and control of vocabulary knowledge with application of texts in foreign languages" component (The certificate on the state registration of the computer program No. 2019612674 of February 26, 2019).

The ETB, traditional printed textbook, printed workbook, and teacher's book make an author's learning and teaching kit that proves its efficiency in the teaching process and can allow achieving better results at the final stage of studying. The developed author's learning and teaching kit is based on guidance documents, working programs, qualification requirements to military schools graduates of an aviation and engineering profile.

In author's opinion, studying materials for LCS development taking into account specifics of military schools should satisfy the following main requirements:

- correspondence to educational documentation;
- authenticity of the demonstrated materials;
- correspondence to the current level of proficiency in cadets in a foreign language;
- relevant information for military school cadets;
- combination of different forms of the speech (dialogues, monologues);
- available excess information elements for formation of time intervals of psychophysical material perception;
- educational value.

The creative combination of the original idea, visual images, sound, music and speech makes complex impact on perception, i.e. promotes more exact and full presentation of information and increases interest during listening, etc. The most relevant audio-and video records presented on the websites [bundeswehr.de](http://bundeswehr.de), [luftwaffe.de](http://luftwaffe.de), [dw.de](http://dw.de) in German can successfully be used by teachers when studying various topics and moduls of the curriculum.

Let's consider the main types of tasks used at various stages of a foreign language lesson which allow forming foreign-language communicative competence more effectively.

The task on introduction of an active text vocabulary with technical capabilities of a classroom is carried out on

the basis of the electronic textbook (with phonetic warm-up) (Fig. 1).

**Lexik/Wortschatz**

0:00:03

Lernen Sie folgende Wörter und (Wortverbindungen, Wendungen) zum Thema:

die Funkmesstechnik Syn. die Radartechnik	радиолокационная техника
das Radar Syn. das Funkmessgerät, die Funkmessstation	радар, радиолокатор; радиолокация
das Primärradar	первичная радиолокация
das Sekundärradar	вторичная радиолокация

Fig. 1. Example of the task with phonetic warm-up

The exercises presented in the workbook correlate with the student’s book and the ETB, but they do not duplicate it. It should be noted that there is a table in the workbook in each lesson that contains an active text vocabulary. The table contains gaps that should be filled out independently by the cadets (Fig. 2).

Füllen Sie die Tabelle aus. Lernen Sie folgende Wörter und Wendungen zum Thema:

die Funkmesstechnik, die Radartechnik	
das Radar, Funkmessgerät, die Funkmessstation	
	первичная радиолокация
	вторичная радиолокация

Fig. 2. Task from the workbook

After filling the table cadets are offered to perform a primary vocabulary activation task using the ETB. For this purpose at the end of the table in the ETB there is a special key that allows transforming the vocabulary list to the test (Fig. 3).

warnen	предостерегать, предупреждать
häufig	частый
im Vergleich zu	по сравнению с
die Erdumlaufbahn	околоземная орбита
die Umlaufbahn	орбита
vermeiden (ie, ie)	избегать.
Преобразовать в тест	

Fig. 3. Transformation of the vocabulary to the test

The task can be performed individually if lessons are given in a computer classroom; in this case each cadet performs a task independently and carries out self-checking. If the classroom is equipped only with one computer, then several cadets can perform the task in turns. After performance of a task the Show Result key is pressed (Fig. 4).

warnen	
häufig	
im Vergleich zu	
die Erdumlaufbahn	
die Umlaufbahn	
vermeiden (ie, ie)	
Показать результат	

Fig. 4. Checking up of the vocabulary test results

At the stage of the vocabulary activation it is also expedient to use the ETB.

During the phonetics warm-up it is necessary to do phonetic exercises provided in each lesson. Such tasks include the most difficult words in terms of pronunciation on certain rules of reading. These exercises are carried out on the basis of the ETB by listening and repeating frontally and individually (Fig. 5).

**Übung 1. Lesen Sie die Wörter. Beachten Sie die Aussprache**

0:00:00

ä: sekundär, Wetterveränderung, Radargeräte  
 ö: Möglichkeit, können, Höheninformation  
 ü: Überwachung, Rückstrahlung, Radarausrüstung;  
 ng: Sicherstellung, Ausrüstung, Entfernung

Fig. 5. Phonetic exercises

Then it is recommended to listen to the audio file from the ETB. This type of work can be carried out both with use of a visual support, and without it, using the differentiated approach and considering level of knowledge of each cadet and educational group in general.

Then it is expedient to exercise control of a common understanding of contents of the text. The teacher is also recommended to ask cadets questions. Another effective exercise for control of content understanding is the task for establishment of validity of given statements.

Questions are presented in the ETB directly after the text that is convenient as the interactive mode of answers to questions with application of the automated self-checking is provided. It is especially relevant during the work on a subject in the mode of independent activity (Fig. 6).

**Übung 15. Markieren Sie die Sätze als richtig oder falsch:**

Der Begriff Radar bezeichnet «Rückstrahlortung».  Richtig  Falsch

Die Radartechnik wurde ursprünglich zu Kriegszwecken entwickelt.  Richtig  Falsch

Die CW-Radargeräte können auch Entfernungen messen.  Richtig  Falsch

Fig. 6. True/False task

In parallel it is necessary to perform the specified tasks in a workbook with obligatory control from the teacher.

For the purpose of improvement of foreign-language auditive competence the ETB includes audio-and video fragments with the tasks aimed at the development of LCS mechanisms: repetition mechanism for the announcer, mechanism of probabilistic forecasting, internal pronunciation, and memory.

For elimination of several difficulties there is a vocabulary to audio texts and video fragments, and in the ETB also there is a vocabulary activation by means of the key that helps transforming to the test mode. These tasks should be performed surely for the purpose of the best orally understanding of the text. Then cadets should watch a short film (Fig. 7).

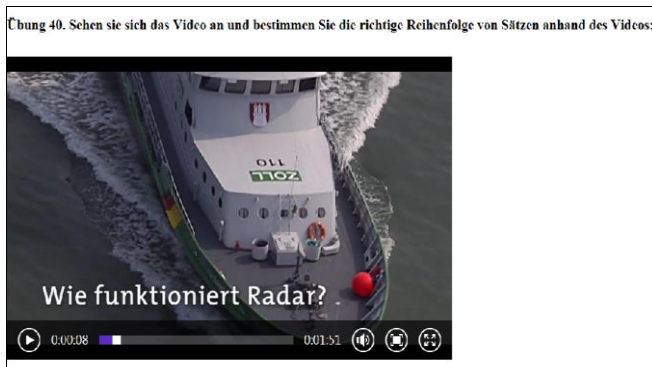


Fig. 7. Video fragment

After listening or watching cadets should do several tasks to control their understanding in an interactive form (Fig. 8).

1	Da sich die Antenne dreht, erkennt Radar außer der Entfernung auch die Richtung, in der sich ein Schiff bewegt.
2	Treffen die Wellen auf ein Schiff, kommen sie als Echo zurück und werden vom Radargerät empfangen.
3	Beobachtet man Schiffe über einen längeren Zeitraum, zeigt das Gerät die Fahrtrichtung und Geschwindigkeit.
4	Die Radarantenne sendet kurze Wellen aus.
5	Radar ist für die Überwachung des Schiffverkehrs unverzichtbar.
6	Bei schlechter Sicht ist das Instrument das wichtigste Navigationsgerät auf dem Schiff.
7	Die Besatzung sieht auf dem Radarbild, ob sich ein Schiff zum Beispiel vorschriftsmäßig in den Fahrwegen bewegt.
8	Um festzustellen, wo und wie sich Schiffe bewegen und ob sich die Kapitäne an die Verkehrsregeln halten, setzt die Küstenwache Radare ein.
9	Das sind elektromagnetische Wellen, die sich mit der Lichtgeschwindigkeit ausbreiten.
10	Es hilft weltweit, Kollisionen zu vermeiden.
Показать результат	

Fig. 8. Task for understanding of the film

Besides traditional types of exercises, in the ETB tasks for pictures placement from the video in the necessary sequence are provided (Fig. 9).

<p>Übung 22. Stellen Sie folgende Bilder in richtiger Reihenfolge und wählen Sie die passenden Unterschriften dazu.</p>	
	a) Auch die patrouillierenden Soldaten ziehen ein positives Resümee.
	b) Mit vier Mercedes Geländewagen macht sich die Patrouille auf den Weg.
	c) Nicht nur der Aufbau von Gefechtsstellen gehört zu den Aufgaben von Fernmeldetruppe, auch der angepasste Waffengebrauch auf Patrouille.
	d) Wir wollen die Grundlagen dafür schaffen, dass die Soldaten in sich, in seine Waffen, in seine Kameraden vertrauen.

Fig.9. Task for the regular string of the film frames

#### IV. CONCLUSION

It should be noted that listening files (by means of a visual support or without it) are traditionally shown once if the teacher aims development of perception and understanding of the text aurally, and twice in case we

assume then to use LCS as means for development of other type of speech activity, for example, of speaking. The tasks aimed at the development and improvements of LCS are provided in the ETB (taking into account the first and second approaches). The tasks are recommended to be carried out in parallel both using the ETB both the workbook.

It should be mentioned that after the second listening of the text cadets have to match answers to questions, give short answers according to contents of the text. For activation of communicative skills it is further recommended to do several exercises directed to commenting of the information by means of the presented phrases clichés and on a training of skills of the prepared / unprepared (spontaneous) speech on a subject of the audio- or video fragment, for example:

- 1) The video is about ...
- 2) I can say that...
- 3) It was interesting for me to get to know that ...
- 4) In my point of view ...
- 5) This video is ...

Thus, complex use of the ETB, textbook and workbook allows using optimum studying time during the lessons and achieving goals more effectively in digestion of the studied material and foreign language skills and to try to obtain a high proficiency level of cadets at the senior stage when studying military and professional subjects. It is expedient using the author's learning and teaching kit not only at lessons, but also during independent activity of cadets for achievement of positive guaranteed results on a predetermined trajectory taking into account the differentiated teaching approach.

#### REFERENCES

- [1] F.M. Van der Kleij, T.J.H.M. Eggen, and R.C.W. Feskens, "Effects of Feedback in a Computer-Based Learning Environment on Students' Learning Outcomes : A Meta Analyses", in Review of Educational Research, vol. 85 (4), pp. 475-511, 2015.
- [2] M. Thurlings, A.T. Evers, and M. Vermeulen, "Toward a Model of Explaining Teachers Innovative Behavior: a Literature Review", in Review of Educational Research, vol. 85 (3), pp. 430-471, 2015.
- [3] R.C. Anderson, "How to Construct Achievement Tests to Access Comprehension", in Review of Educational Research, vol. 42 (2), pp. 145-170, 1972.
- [4] M.A. Suzdalova, V.G. Lizunkov, E.Yu. Malushko, N.A. Sytina, and V.E. Medvedev, "Innovative Forms of Partnership in Development and Implementation of University-Business Cooperation", in The European Proceedings of Social & Behavioural Sciences EpSBS, vol. XIX, pp. 450-455, 2017.
- [5] E. Yu. Malushko, O. A. Maletina, and V. A. Tsybanyova, "The Model of Teaching Listening Skills to Postgraduates with Disabilities and Special Needs in the Educational Podosphere", in Advances in Social Science, Education and Humanities Research (ASSEHR), vol. 198, pp. 275-279, 2018.
- [6] R.V. Kozma, "Learning with Media", in Review of Educational Research, vol. 61 (2), pp. 179-211, 1991.
- [7] C. Bereiter, "Aspects of an Educational Learning Theory", in Review of Educational Research, vol. 60 (4), pp. 603-624, 1990.
- [8] F.V. Tochon, "The Key to Global Understanding", in Review of Educational Research, vol. 79 (2), pp. 650-681, 2017.
- [9] E. Yu. Malushko, "Use of special virtual learning system for educating schoolchildren with disabilities", International



Multidisciplinary Scientific Conferences on Social Sciences and Arts, pp. 1155-1160, 2015.

- [10] E.V. Murugova, "Theoretical and applied aspects of corpus based researches", in *Vestnik Volgogradskogo Gosudarstvennogo Universiteta-seriya 2-yazykoznanie*, vol. 16 (2), pp. 197-200, 2017
- [11] N. Davis, O. Ergunova, V. Lizunkov, and E. Malushko, "Phenomenon of migration and its manifestations in the modern world", in *European Proceedings of Social and Behavioural Sciences*", vol. 26, pp. 550-556, 2017.
- [12] V.G. Lizunkov, V. I. Marchuk, and E. Yu. Malushko, "Economical and Managerial Competencies of Bachelors in Mechanical Engineering", in *European Proceedings of Social and Behavioural Sciences*, vol. 19, pp. 456-463, 2017.