

Textbook: Focus on Modern Trends

New Generation of Foreign Language Textbook as Reflecting Current Challenges

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Abstract

The article deals with the conception of the new generation foreign language textbook reflecting contemporary challenges in the sphere of higher education. These are integration processes involving globalization and localization, interdisciplinary tendencies, interactive collaborative learning methods, digital technologies, visualization practices. Modern textbook is shown to have become a pedagogical platform that ensures the compatibility of methodological conditions for interconnected learning of receptive and productive types of speech activity: reading, listening, speaking and writing. Integrative approach in the textbook composition is illustrated by inclusion of Russian-English translation exercises and integrated assignments involving reading, watching a video and writing. Interdisciplinary principle is exemplified by the technical English manual combining scientific, technical, and intercultural components variation. Interactive learning methods are shown to trigger teamwork performed in the classroom or in independent mode with the use of digital technologies. It is indicated that numerous computer-assisted language learning tasks are becoming more widely used in modern textbooks, especially those aimed at the content visualization. Some of the visualizing elements, like word clouds, mental maps and info posters, are considered in detail accentuating their didactic values.

Keywords: textbook, integration, digital technologies, collaborative assignments, visualization.

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Introduction

It is well known that textbook has always been the main means of learning and it is only logical, therefore, that it is supposed to reflect some of the existing modern challenges. Consideration of the course book role is a topical issue in education in spite of the enormous amount of information available on the Internet. Its key functions are arranging and classifying information, providing explanations, assignments and keys to these assignments. When it comes to developing a course book, it is essential to keep in mind that it should strike the right balance between the learners' needs and the specific requirements set out in the curriculum. On the other hand, the course book can be regarded as an intermediary between the information on the subject and the students (Romanowski, 2016). When learners are bombarded by unstructured information from all directions, they are unable to process it or to select the precious nuggets of information they need for their professional development. As far as foreign language course books are concerned, they should be regarded as intermediaries between the students and the foreign language they are learning. Basically, the functions of the new generation or next generation (Next-Gen) foreign language course book are similar to those of a traditional one, but some of its characteristics are different.

Most people imagine that the new generation foreign language course book should necessarily be in an electronic form because the age of paper books is over. Actually, it does not matter in what form it will be because what really matters is its concept. The idea of the new generation foreign language course book is predetermined by today's global tertiary educational environment.

Integration processes resulting in global education space (Fatkullina et al, 2015) call for ESP (English for specific purposes) course books that appeal to an international audience; therefore, all the explanations as well as the wording of the assignments should be provided in English. On the other hand, course books should be developed in accordance with the principle "Globalize, but localize". This phrase was originally used by environmentalists, and it urges people to take actions on their local grassroots level in order to contribute to the overall health of the entire planet. The idea of thinking locally and acting globally is generally attributed to Patrick Geddes, a Scottish sociologist, philanthropist and town planner. However, this idea is applicable in many spheres, including teaching foreign languages and developing course books in particular. Linguistic students specializing in interpreting and translation as well as the ones majoring in teaching English need to be able to find the words in English translated into their native language because it is an essential part of their professional development. Students majoring in subjects other than linguistics should be able to find the correspondence between the terms in English and those in their native tongue since it will enhance their understanding of professionally-oriented texts. In this way the integration trend (Nikitenko, 2013; Avshenyuk, 2014) is accompanied by differentiation based on national specificity issues.

Interdisciplinary approach as an evident trend in modern higher education should be also taken into account when creating new foreign language textbooks. Traditional approach, which implied specializing in a limited range of subjects, has been criticized recently. Each topic is now analyzed from various perspectives; different branches of science being taken into account. Thus, when it comes to solving a problem, students have to combine their knowledge of humanities and technical subjects.

Interactive (participatory) learning methods, such as discussions, game tasks, finding solutions to real-life problems have recently been adopted to supplement traditional lectures. So, instructors do not just share their knowledge with students; they facilitate creative cognitive and communicative activities of learners working in small subgroups (Chilingaryan et al., 2021) Therefore, collaborative learning is one more trend correlating with interactive learning, which should also be taken into account when course books are planned. In contemporary practice, both interactive and collaborative formats of learning ESP take place in the computer environment, which is available in class and at home. Interactive learning methods (Ganyaupfu, 2013), in our opinion, are the most student-centered among the other ones mentioned in our short review.

Digital technologies and blended learning in contemporary tertiary education may be considered to be the main trend reflected in the new generation foreign language textbook. Increasingly more attention should be paid to students' cognitive ability to learn, process information, absorb new technologies, tackle various problems creatively and think critically. On the whole, students should be given more freedom of choice, so in modern tertiary education they are free to build their individual learning trajectories and decide what subjects / topics they want to study. This gives learners a sense of involvement and responsibility for their own educational outcomes and increases their motivation.

Visualization is another trend, which may be considered to be an essential part of digital technologies. It is actually modern development of the well-known pedagogical principle of visibility. Visual quality has always played an important role in the culture of society, but now the quantitative increase in the presentation of information in a visual form is no longer the main concern of researchers. In many studies, the so-called "visual turn" is noted as a phenomenon that appeared at the turn of the 21st century, which is expressed in the predominant influence of the visual component of the socio-cultural environment on a person's life (Aranova, 2019; Ischenko, 2016; Vinogradov, 2010, etc.)

The very essence of the visual and the ways of its existence in our life are changing. Researchers pay attention to qualitative, systemic changes: for example, the function of modern media is not limited to the exploitation of the visual, "their development demonstrates the boundless transgression of the visual" along

with the process of “repression of the verbal” (Ishchenko, 2016). Moreover, the currently created visual images substitute, simulate realities, and direct experience is replaced by the “virtual” one, which leads to self-determination of the individual in the virtual, not in the real world.

The growth and diversity of visual content in education actualizes the problem of finding pedagogical tools and visualization formats, like infographics (Almazova et al, 2019; Radchenko, 2018, etc.), for example, to determine the content of students' activities in accordance with modern requests for educational outcomes in the information society. Visual communication is used in various academic subjects, in particular, when it comes to teaching a foreign language. That is why it seems important for us to take this current trend into account when writing textbooks of the new generation, which will, more than traditional textbooks, reflect the digital visualization of the content.

Purpose and objectives of the study

The purpose of this article is to describe the main features of the new generation foreign language course book reflecting to a certain extent all the above trends of contemporary education. Our **main objectives** are to analyze the didactic functions of the existing modern English language textbook assignments and to present some examples of textbook format visualization to be used in the new generation foreign language course book.

Literature review

An integrative approach to textbook creation is probably the most appropriate umbrella term to describe the prevailing trend in textbook-oriented linguodidactics. All the signs of integration are observed in education: the introduction of information technologies, the fusion of traditional education and its alternative forms, such as media education, Internet technologies, distance learning, etc. In line with general innovative trends, conditions have been created for the intensification of the education informatization means, which also enhances the importance of various methods and means of transforming educational information, visualization being one of them.

Generally, the “local-global approach” as one of the manifestations of an integrative approach came in for severe criticism in the last quarter of the 20th century since it involved translation from the native language into English. Learning a foreign language by translating is considered to be detrimental to fluency since students tend to apply collocations and grammatical patterns from their native language instead of using the structures typical of the language they are practicing. Nevertheless, recently some educationalists are

beginning to wake up to the fact that translation is an essential component of learning a foreign language since it provides students with a marvelous opportunity to compare lexical and grammatical phenomena typical of the foreign language and their native one (Masalkova, 2014). Such analysis is very useful, especially when it comes to teaching students majoring in linguistics, since they gain deeper insights into the language they are learning. However, students majoring in the subjects other than linguistics can also benefit from such a comparative analysis because they need to understand clearly what foreign-language terms correspond to their Russian equivalents. It means that the Next-Gen course books for both linguistic and non-linguistic universities based on the principle “globalize, but localize” should include some translation assignments.

Interdisciplinarity principle supplements the scope of integration in the sphere of textbook creation as exemplified drawing on the content of two or more professionally-oriented disciplines in foreign language textbooks (Almazova et al, 2013) for graduate students. It implies, firstly, the selection of the information based on the knowledge gained from other courses studied by learners, for example, the technical subjects in which they are majoring. Also contributing to interdisciplinary links is the use of active methods common for different disciplines, for example, project assignments, case studies, round table discussions.

The unified field of professional knowledge and skills of postgraduates thus formed in the teaching manual includes several cognitive components that develop on the basis of a foreign language. We also note that if the scientific, technical, interdisciplinary and intercultural components provide the necessary content variation, then the information or computer component is more responsible for the procedural aspect of the manual. A foreign language is used as a means of business, professional and interpersonal communication, which makes a significant contribution to the development of a unified field of professional knowledge and skills of future engineers.

The texts describing various interdisciplinary studies that are currently becoming the most innovative and significant for the overall integration development of all branches of science are also included in the modern textbook model. The idea of an interdisciplinary approach as a source of enrichment of various sciences with new ideas is important for undergraduates of all directions, and that is why they were included in this manual for training abstract translation skills. These texts are also intended for translation and compilation of a glossary using concordance programs.

The development of an intercultural aspect, in which interdisciplinary ties with cultural studies and intercultural communication are emphasized, is based on the study of various cases from the “practice of failures” in the field of intercultural communication (ibidem). At the same time, monologue speech training

is combined with pair work and an interactive polylogical discussion of cases from the life practice of intercultural communication and a discussion of the ways to avoid failures. To train presentation skills, undergraduates are invited to study the recommendations attached in the manual and prepare their own speeches relevant to the topics studied.

Interactive learning methods are an essential part of a modern textbook and should be aimed at achieving an ultimate outcome of various collaborative activities (such as a group project, an educational game, a case study, etc.) that learners are involved in. Students can benefit from such cooperation since they acquire interpersonal skills and learn to be responsible for the tangible results of teamwork (Korotayeva, 2013). Therefore, assignments that involve learners in teamwork should be an inherent part of the Next-Gen foreign language course book. In the context of teaching foreign languages, for such assignments to be useful they should be accompanied with pivot words, role cards and other reference materials that will keep the discussion on track. Without them students are reluctant to leave their “comfort zone” and tend to avoid using new grammar structures and vocabulary.

Teamwork is conducive to better learning outcomes since students are more motivated, their self-esteem improves, and they become more self-confident (Kholmogorova, O.I., 2019). It is true of both top-performing students and low achievers because the former give explanations to their teammates thus getting more practice, whereas it is easier for the latter to understand their peers’ explanations. The high achievers are more sensitive to their teammates’ deficiencies; therefore, they are in a better position to adjust to their cognitive demands.

Another important condition for collaborative learning that the Next-Gen course book should comply with is involving students in investigating by providing them with extended content (Li, Ge, Wang, Liu, 2019). Many learners claim that English grammar and vocabulary are not the main obstacles preventing them from speaking fluently. They have difficulty expressing ideas and finding arguments in their own language because they are not knowledgeable enough about subject matter. The Next-Gen textbook should provide access to relevant content in different forms, such as texts, links to various sites and channels.

Digital technologies (Robert, 2010; Gnatik, 2017; Kondakov, Kopeikina, Voloshina, Usatov, 2019, etc.) are also, by all means, integrated into the New-Gen textbook, whose basic model may be represented as follows: Professional topics + Foreign language + Digital technologies. It must be pointed out that a characteristic feature of the modern stage of the computer teaching language environment is no longer the need to develop a new software product, but a careful selection of already existing means of computational linguodidactics. To create modern manuals, we opted for the following open electronic resources, which

we used to create new generation manuals and modernize the existing ones: e-mail for organizing student communication when performing group projects or pair assignments; machine translation programs Promt, Translate and others, which can be applied to perform a comparative analysis of the texts translated by them; dictionaries Lingvo, Multitran and others, which can be used even on a mobile phone to find synonyms, antonyms and definitions of the studied lexical units; PowerPoint program for performing creative tasks which involve preparing multimedia presentations; podcasts and multimedia such as YouTube for listening; Internet resources for creating search tasks for finding additional educational material; Hot potatoes program for compiling lexical crosswords; creation of a textbook website using a special program available on the Google resource for continuous expansion and updating of the textbook content; using simulation games available on the Internet to enrich the content of a traditional textbook; social service *Vkontakte* to enhance the interactive communication of students in the mode of extracurricular independent work; concordance programs that allow you to select special vocabulary according to the principle of frequency from large text corpora to create glossaries for the specialty; the site of the British National Corpus for drawing up additional concordances for any words of interest to us; mental maps, posters, clouds of words, for visualization of the textbook content. etc.

The list of possible tasks performed by students on a computer given by us is far from complete, but even these tasks allow to give the textbook a new modern status. Especially important to characterize the modern nature of the NextGen textbook are the tasks intended to enhance visualization (Nikulova & Podobnykh, 2010), which can be illustrated by *mental maps*, *posters* and *word clouds* as examples.

According to the research of psychologists, 80% of students are visuals and only 20% are audials and kinesthetics, which is why great importance is attached to visualization in the study of academic disciplines. The need to use visualization is substantiated in many methodological works, for example, E. N. Solovova states that “the more channels of perception are involved in the process of receiving, processing and applying information, the more associative links are created in connection with the material under study, the higher the probability of its lasting assimilation”(Solovova 2008: 193). Based on this statement of one of the leading Russian methodologists, and also taking into account similar opinions of other researchers in support of visualization (Aranova, 2017; Nekliaev, 2010; Kondratenko, 2013; Zhigareva, 2011; Reznik, 2011; Syrina, 2016; Peskova, 2012, etc.), we can consider the elements of content visualization we offer in teaching a foreign language as an effective means of obtaining and using educational information, and these functions, in turn, determine the methodological tasks that can be solved through educational tasks for visualization.

Visualization trend in the NextGen textbook may be considered beginning from the electronic resource of

"Word cloud" for the content visualization to be effectively used in a modern foreign language textbook. This resource contributes to the organization of educational work with vocabulary, memory training, correction of attention and analysis of the main ideas of the text, updating knowledge of working with the text. It can be also used as a pre-reading, pre-listening, pre-writing activity in order to let learners focus on the content of the topic to be discussed (Tafazoli, 2013). "Word cloud" is concentrated text information, the basis of which is the selection of keywords and combinations on a specific topic. When a cloud of words for a specific text is included in the canvas of a practical lesson, memorization of lexical units improves, associative and logical connections are activated. The word cloud helps students focus and recreate the content of the original text itself. The word cloud serves as a bridge for retelling the content of the studied text, contributes, to some extent, to the systematization or ordering of the main ideas of the text. The word cloud task can be adapted to groups of students with different levels of training and for those with low level of linguistic competence it can make up for the lack of vocabulary that is very common, it can also be used as a means of control (ibidem).

Note that the electronic resource "Word Cloud" has also been tested in teaching according to the CLIL (content and language integrated learning) methodology, and is mainly used to introduce the topic, as an introductory lexical block (Dale, Tanner, 2012). Using a word cloud as a warm up activity is an original way of introducing any topic.

Another electronic resource to be used for visualization is *mental map* exercise. Traditionally, a mental map is implemented in the form of a tree-like diagram, which depicts various words, ideas, tasks and other concepts that are related to each other by so-called branches extending from the central concept or idea. This technique is based on the principle of "radiant thinking", which refers to the associative thought process (Kuzmina, 2019) Mental maps are widely used in teaching, taking notes of lectures and books, solving various creative problems, preparing thematic materials, brainstorming, presentations, planning and developing projects, generalizing and structuring knowledge, etc.

Methodological tasks to be solved by means of mental map task include the following: somatization of lexical material; creating a communicative situation for using the studied material; creating a problem situation; the formation of receptive and productive lexical skills; increasing the motivation of students; ensuring the integration of types of speech activity when working with visual elements; presentation of the results of students' research activities; a form of reflection of educational activity. Although the range of methodological problems to be solved is very wide, we understand that all the elements of the visual presentation of information selected by us (see Appendix) solve these problems to varying degrees (Tsatsulina, 2020).

For example, an educational poster / info poster (Radchenko, 2018) can become a product of students' reflection on a given topic, which is introduced by the text of the corresponding lesson in the manual. To prepare a poster in the mode of independent work, a student must carefully read the text and select key words from it based on its content. If, for example, the text describes certain physical phenomena or the course of an experiment, then the student is invited to visualize these aspects in the picture section of the google service. When copying pictures onto one slide, the student thinks over the logic of his mini-presentation of the text content and places the pictures in the desired order. If in a foreign language lesson pair work is carried out to discuss posters prepared by students, then for this, students need to prepare questions on the topic under discussion, and the number of questions may be equal to the number of pictures on the poster (Kazakova, 2018).

It should be noted that drawing up mental maps and posters by students forms the students' universal educational actions (Guseva, 2012), which is currently considered an important functional aspect of all disciplines, in particular, that of foreign language. The skills of creating a mental map or poster, as well as their dubbing in a foreign language, are important, for example, to prepare students for presentations in any discipline, including specialized ones. Universal educational activities or universal transferrable skills of scientific work, formed on the basis of a foreign language, will be in full demand in the future, for example, in the future conference activities of students.

Methodology

The article examines examples of new generation foreign language textbooks, as well as the pedagogical tools presented in them for optimizing the presentation of educational information and options for educational tasks taking into account content visualization possibilities. The article presents a comparative analysis and assessment of the didactic usefulness of various methods of updating the content of the professionally oriented textbooks and teaching aids in a foreign language.

Results

A modern textbook has become a pedagogical platform that ensures the compatibility of methodological conditions for interconnected learning (Mazunova & Hasanova, 2010), of receptive and productive types of speech activity: reading, listening, speaking and writing. This requirement, in our opinion, is optimally actualized in integrated tasks by analogy with the formats "integrated writing" and "integrated speaking" at the international TOEFL exam, where students first read the text and then listen to the audio material on the same subject for further comparison.

In a new generation textbook, taking into account the capabilities of computer visualization of content to facilitate the perception of foreign language speech, audio material can be successfully replaced with video fragments. In addition to removing some linguistic and psychological difficulties, the use of audiovisual teaching methods allows students to achieve emotional involvement in the process of watching videos, which increases the general interest of students in the topic under consideration. The simultaneous use of the students' auditory and visual channels when watching a video makes it possible to maximize the perception of content (Aranova, 2011) that is, it leads to the intensification of teaching a foreign language. Authentic professionally oriented video is at the same time a source of linguistic and subject visualization, effectively visualizing the studied technical content.

The subject matter should be presented in the form of exercises that help learners develop analytical skills and make them think critically, for example, looking at a problem from different perspectives, devising alternative ways of solving it, putting forward arguments in support of a particular position, reviewing results of research into a certain topic (Kovyleva, 2009). The Next-Gen foreign language course book should comprise such exercises at the end of each unit because they can serve as a springboard for further discussion, which, in its turn, triggers teamwork, which can be performed in the classroom or in an independent mode with the use of digital technologies.

Discussion

Knowledge of a foreign language and the ability to use a computer are, according to modern concepts, fixed in the basic European documents on the functional skills necessary for each specialist, generally referred to as competencies. The recognition of these skills as functional means that they are necessary for every specialist and are an integral part of professional competence, which is acquired, among other things, in the process of doing NextGen textbook assignments to be exemplified below.

Examples of the NextGen textbook assignments. The “local-global” integrative approach can be illustrated with such a course book for linguistic students as *Specialists' training in the multilevel system of higher education (2020)* by Dashkina, A.I.; Dmitriev, A.V. In each unit of this textbook, after doing multiple assignments aimed at the acquisition and consolidation of the vocabulary, students are given ten Russian sentences so that they can translate them and practice their academic English. Another course book for non-linguistic universities *English language. Practical course for economics majors. Accounting.* by Dashkina A.I., Popova, N.V. includes assignments for practicing Russian-English translations of accounting terms after each text.

An example of an integrated task as an analogy to the TOEFL exam task is given from a textbook of a hydrotechnical profile in each unit of which the video on Hydraulic engineering is used. In the assignments we have created, reading the thematic text according to the profile of the students precedes watching the video, although the order of presentation of the material for interconnected learning may vary depending on the goals of the teacher. The text, in this case, is used as an indicative basis and a structural component of other types of speech activity. After watching a video on the construction of a hydroelectric power plant in independent work twice, the student is asked to answer questions comparing the content of the text and video and write an essay on this topic. When writing an essay, students should, first of all, focus on the material they listened to, supplementing it with information from the text read. In this combined task, the skills of reading, listening and writing are directly actualized, in addition, students are indirectly prepared for oral communication through video in a classroom lesson.

The wording of the integrated task is as follows: **Assignment 1.** Integrated task to Unit 6. Read the text *Dam Safety*, watch the video, complementing the text, twice using subtitles, if necessary, and compare the content of both. Then answer the questions below and write the answers to these questions in the essay of 250-300 words (ibidem).

As for the interactive learning methods, they are exemplified in a course book *Specialists' training in the multilevel system of higher education* (2020) by Dashkina, A.I.; Dmitriev, A.V. discussion assignments aimed at developing critical thinking can take different forms. In the unit *Welcome to dot.com technologies* students are given two bar charts with the numbers of smartphone and internet users in 7 countries. They have to compare them and comment on what has happened in these countries since 2018. Another unit called *Jobs and automation* includes a short entry about precariat. Students are given the assignment to analyze to what extent this problem has been brought about by automation and discuss such related issues as “True fulfillment is under danger”, “Workforce casualization”, “McJobs” and “Involuntary unemployment”.

The analytical and discussion assignments in the Next-Gen textbook can be based on describing visual information such as charts, graphs and tables. Such tasks should be done in small groups because linguistic students are often put off by having to work with graphical information and numbers. This reluctance to deal with data can be overcome by sharing the burden of doing such assignments with their peers. The assignment below from the unit “Ecosystems and biomes” vividly illustrates the point:

Assignment 2. The table below shows the data your team collected while documenting the biodiversity on three islands. On the basis of these results, which of the islands should be categorized as having the

greatest biodiversity, using the criterion of species richness? Explain your answer in 2-3 sentences. Hint: it is the number of species that determines species richness, not the number of individual organisms.

Island A	10 species	320 individuals
Island B	8 species	856 individuals
Island C	4 species	2,000 individuals

Discussing this simple table in groups will make the students feel more confident and pave the way to developing their analytical thinking. In the course book *English. Listening comprehension tasks for linguistic majors* by Dashkina A.I. and Popova N.V. almost every unit contains texts as well as links to videos and sites where students can find information which they can later deploy in their discussions. For example, after watching the presentation *Teachers need real feedback* given by Bill Gates on TED stage, students get the assignment to read the text from a paper on Student-Staff liaison committee and find at least three points of similarity between this text and Bill Gates's talk. Then they are given the task to go to the link to the video *Sources for teacher evaluation data*, specify the message of the video and take notes of information they have learned about teacher evaluation. Then they are asked to draw on comparison of tackling the problem of teacher evaluation in different countries.

While students are doing their team assignments in small groups, the teacher should walk around the classroom and listen to the dialogues in order to help them if necessary and correct their mistakes (Drozdova, 2017). However, the teacher cannot listen to everyone simultaneously, therefore many errors will inevitably go unnoticed. To minimize the number of errors, the Next-Gen textbook should be accompanied by keys to the most difficult assignments and sample answers to creative tasks, which can even be provided in a separate book. For example, the textbook by Dashkina A.I., Popova N.V. *English. Listening comprehension tasks for linguistic majors* was accompanied by another course book *Collaborative learning. The self-study course book on listening comprehension for linguistic majors*, which comprised such relevant information as keys, definitions of some difficult words and entries about some cultural issues related to the content of the main book. Such keys can be used by students in the course of collaborative learning to check each other's lexical and grammatical accuracy.

Tasks presented to students in an unusual visual form can be performed individually or presented frontally for group work. The following possibilities of using the "word cloud" in teaching a foreign language can be noted: making sentences on a specific topic using the vocabulary included in the cloud; ranking of expressions with words that are included in the thematic cloud; using a word cloud as a pre-text task to teach students a linguistic guess about the content of the text. When testing the textbook, we compared the

work of students in mastering new vocabulary with and without the use of a word cloud, and we can make a preliminary conclusion that this task, to a certain extent, helps to increase the motivation of students and motivate them to more active learning activities. The example of word cloud task is given below in Fig.1:

Assignment 3. Study the word cloud of the text “What Makes Science Possible” and do the exercise below:



Fig.1. Example of word cloud

1. Divide all words from the word cloud based on their classes (or parts of speech: nouns, pronouns, verbs, adverbs, adjectives, interjections, etc.).
2. Write 5 sentences using the most frequent words.

As for *mind maps*, from a learning point of view, they are used to capture information, assimilate knowledge, analyze and understand material, write research papers, reproduce what has been learned and give feedback (Kuzmina, 2019). When studying a foreign language, a mind map can be used in one way or another, depending on the topic, goal and task set for the teacher, for example: learning new vocabulary; support for rendering the text; summing up the topic or problem; development of students' creative potential, etc. In modern English language manual mental maps (Tsatsulina, 2020) are mainly used by the students to prepare for rendering or summarizing the textual content. The creation of a mind map can also be an additional visualization step when watching a video, which motivates students and is positively evaluated by them.

Assignment 4. Read the text «11 Bizarre Inventions of the 19th Century You've Never Heard Of»

(<http://theoldtimey.com/11-bizarre-inventions-of-the-19th-century/>) and create a mind map to render the text, using the resource MindMeister <https://www.mindmeister.com/ru>. An example of the mind map on the subject “HEALTH” is given below, in Fig.2.

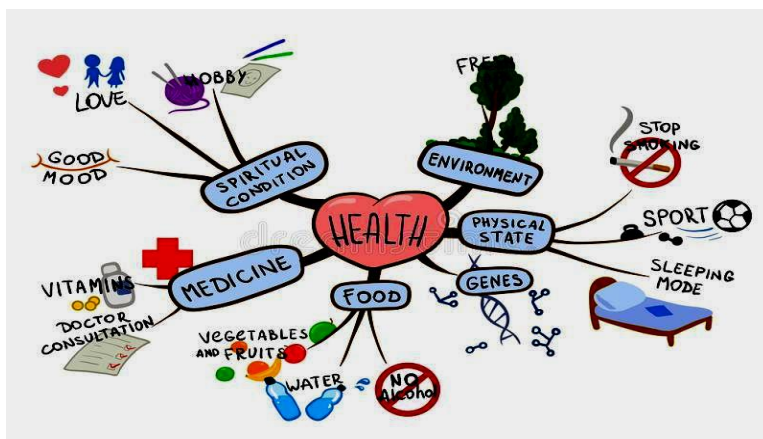


Fig.2. Example of mind map

As for the poster / info poster format, it seems to us that a poster has some advantage over a Power Point presentation on the same topic, and this advantage lies in the fact that the poster conveys the essence of the topic in a more concentrated way, but at the same time it takes less time to prepare it, most often less than half an hour.

A poster, in fact, can be a form of reflection at any stage of educational activity, for example, when performing educational projects. With the help of posters, project participants evaluate the work of the parallel group, analyze it or present it in the form of images. Thus, posters are a modern teaching tool that has a fairly wide didactic potential in the activities of a foreign language teacher, which allows them to be used for purposeful use for educational purposes of visualizing a learning task. An example of info poster format task is shown below, in Fig.3.

Assignment 5. The info poster is visualizing the topic *Breakthroughs and Dead ends in Science*. Answer the questions below to interpret the meaning of this poster and prepare a short presentation of the essence of Breakthroughs and Dead ends in Science (1,5-2 min. long).

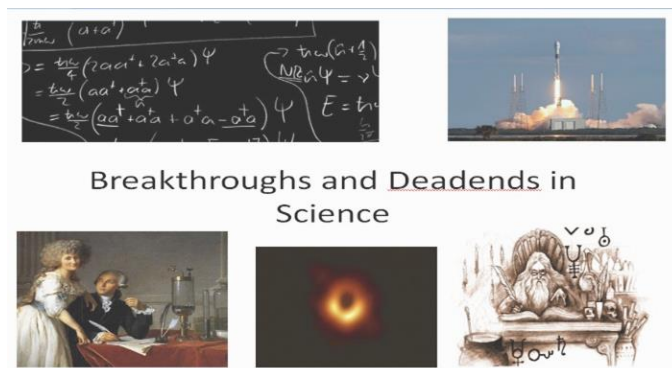


Fig.3. Example of info poster

1) What kind of pseudoscience do you know? / 2) What is the “peasant” pseudo-genetics? 3) What are the causes of corruption in science? / 4) What is the phlogiston and why it was the burning scientific issue of the eighteenth century?

Info posters are generally used so that “during discussion students have a kind of information base on the basis of which reasoning will be built. In other words, by means of info posters we avoid a rather common situation when students do not participate in communication with each other or with the teacher, because they have “nothing to say on the topic”, i.e. they do not have the necessary minimum knowledge of the topic, even in their native tongue” (Radchenko, 2018: 149).

The variability of the proposed visualizing elements also depends on the goal and on the conditions of educational activities for the study of a foreign language, therefore, we especially emphasize the importance of preliminary determination of the goals of language learning, which ultimately should correlate with the types of exercises or practiced activities.

Conclusion

The Next-Gen course book should be in tune with the mainstream in science and education. Therefore, it should be developed in accordance with such predominant trends as integration, interdisciplinary approach, interaction practices, development of digital technologies and visualization. The article describes how these trends correlate with the concepts of textbook-oriented linguodidactics.

The Next-Gen course book should feature integrated assignments since they ensure interconnected learning of receptive and productive types of speech activity. Today textbooks have more components than earlier: apart from traditional professionally-oriented texts with grammatical and lexical assignments, they include

a business component (e.g. the basics of business correspondence); an intercultural component (texts and videos carrying information about the country where the foreign language is spoken), and a digital component (links to videos, sites, interactive games that help to consolidate the vocabulary).

The interactive component is another essential characteristic of the Next-Gen course book; therefore, it should feature assignments that involve learners in teamwork. Such tasks should be accompanied with scaffolding like pivot words and role cards that can keep the discussion on track. Visualization in the form of mind maps, word clouds and posters is also conducive to acquiring foreign language interactive skills. It comes in useful when students are unable to join in the discussion because they lack knowledge about subject matter. If they have visual images to fall back on, they will achieve more fluency since this form of visualization contributes to generating ideas.

If the assignments are presented in an unusual form, they boost students' motivation and teach them to present the results of their academic achievements. Thus visualization contributes to the development of transferrable academic skills, which are demanded, among other things, in conferencing activities, professionally-oriented communication, preparation of scientific papers, etc. The students will be able to use these skills in their future scientific career whenever they need to present the results of their research in front of the audience.

The widespread availability of the internet enables teachers and educators to develop Next-Gen coursebooks since they can retrieve useful nuggets of information from internet resources and deploy them while developing assignments. Therefore, digitization makes it possible to be in tune with such prevailing trends in teaching foreign languages as interactivity, integration and visualization thus taking the Next-Gen textbook to an entirely new level.

References

Almazova, N.I., Anna Rubtsova, Yulia Radchenko, Darina Barinova. Infographics in Engineering Education: Methods of Professional Communicative Context Development Conference: PCSF 2019 - 9th PCSF Professional Culture of the Specialist of the Future December 2019. DOI: 10.15405/epsbs.2019.12.40

Almazova, N.I., Popova, N.V., Nikitenko, O.A., Stepanova, M.M. (2013). *Anglijskij yazyk. Uchebnoe posobie dlya magistrantov gumanitarnogo profilya (uchebnoe posobie)* [English. Textbook for undergraduates in the humanities (textbook)] SPb.: Izd-vo Politekhn. un-ta, [Publishing house of the Polytechnic. University]. 220 p.

Aranova, S. V. (2017). Intellektual'no-graficheskaya kul'tura vizualizacii uchebnoj informacii v kontekste modernizacii obshchego obrazovaniya [Intellectual-graphic culture of educational information visualization in the context of modernization of general education]. *Vestnik Chelyabinskogo gosudarstvennogo pedagogicheskogo universiteta [Bulletin of the Chelyabinsk State Pedagogical University]*. № 5. 9–16.

Aranova, S.V. (2011). K metodologii vizualizacii uchebnoj informacii. Integraciya hudozhestvennogo i logicheskogo [Methodology of educational information visualization. Integration of the artistic and logical]. *Vestnik Adygejskogo gosudarstvennogo universiteta. Seriya 3: Pedagogika i psihologiya. [Bulletin of the Adyghe State University. Series 3: Pedagogy and Psychology]*. № 2. 56-62.

Aranova. S. V. (2019). Kul'turologicheskaya tendenciya vizualizacii uchebnoj informacii v shkol'nom obuchenii. [Cultural trend of educational information visualization in school education] *Izvestiya RGPU im. A. I. Gercena [Izvestia of A. I. Herzen RGPU]* № 193. 107-115.

Avshenyuk, N. (2014) The phenomenon of "global education space" as an object of scientific-pedagogical research. *Comparative Professional Pedagogy* 4(1), 25-31. DOI:10.2478/rpp-2014-0004

Vinogradov, P. N. (2010). Vizual'naya kul'tura lichnosti: genesis, struktura i funkcii [The visual culture of personality: Genesis, structure and functions] // *Izvestiya Rossijskogo gosudarstvennogo pedagogicheskogo universiteta im. A. I. Gercena [Proceedings of the Russian state pedagogical University named after A. I. Gertsen]*, 2010. № 136. 21–26.

Chilingaryan, K; Gorbatenko, R.; Gorbatenko, O. (2016). The teacher's role in the modern educational process_____// Conference: ADVED 978-605-64453-8-5 At: Turkey, https://www.researchgate.net/publication/308203909_THE_TEACHER'S_ROLE_IN_THE_MODERN_EDUCATIONAL_PROCESS/link/57ddb1cb08ae72d72ea98f5e/download (Accessed 21.01.2021)

Dale, Liz & Tanner, Rosie (2012). CLIL Activities. A resource for subject and language teachers. CUP. 284p

Dashkina, A.I.; Dmitriev, A.V. (2020). Podgotovka specialista v sisteme mnogourovnevnogo obrazovaniya. Akademicheskaya mobil'nost'. [Specialists' training in the multilevel system of higher education. Academic mobility]. *Course book*. Saint Petersburg Peter the Great polytechnic university, 2020.

Dashkina A.I., Popova N.V. (2016). Anglijskij yazyk. Uchebnoe posobie po audirovaniyu dlya lingvistov. [English. Listening comprehension tasks for linguistic majors]. *Course book*. Saint Petersburg Peter the

Great polytechnic university.

Drozdova, E.V. (2017). Rabota v gruppah na urokah inostrannogo yazyka [Teamwork in an ESL class] *Voprosy nauki i obrazovaniya [Problems of science and education]*, 6 (7), 140-142.

Ishchenko, E. N. (2016) «Vizual'nyj povorot» v sovremennoj kul'ture: opyty filosofskoj refleksii ["Visual turn" in modern culture: experiments of philosophical reflection]. *Vestnik Voronezhskogo gosudarstvennogo universiteta. Seriya: Filosofiya* [Bulletin of Voronezh state university. Series: Philosophy]. № 2 (20). 16–27.

Gnatik, E. (2017). Socio-psychological Aspects of Informatization of Higher Education. *Advances in Social Science, Education and Humanities Research, volume 142 / 4th International Conference on Education, Language, Art and Intercultural Communication (ICELAIC 2017)* 16-19. <https://doi.org/10.2991/icelaic-17.2017.5>

Fatkullina, F.; Morozkina, E.; Suleimanova, A. (2015). Modern Higher Education: Problems and Perspectives. *Worldwide trends in the development of education and academic research Procedia - Social and Behavioral Sciences* 214 (2015), 571 – 577. <https://doi.org/10.1016/j.sbspro.2015.11.762>

Ganyaupfu E.M. (2013). Teaching Methods and Students' Academic Performance. *International Journal of Humanities and Social Science Invention Volume 2 Issue 9*, 29-35. www.ijhssi.org

Guseva E.A. (2012). *Razvitie universal'nyh uchebnyh dejstvij i umenij studentov v prepodavanii gumanitarnyh disciplin tekhnicheskogo vuza*. [Development of students' universal educational actions and skills in teaching humanitarian disciplines of a technical university.] *Izvestiya MGTU «MAMI», [Bulletin of the MGTU «MAMI»]*. №2 (14), 2012. T.3, S.349-352.

Romanowski, P. (2016). Business English course books – why and how to evaluate them? [doi:http://dx.doi.org/10.18460/ANY.2016.1.003](http://dx.doi.org/10.18460/ANY.2016.1.003)
https://www.researchgate.net/publication/303242018_Business_English_Course_Books__Why_and_How_to_Evaluate_them/link/5739c6c508ae9ace840daea7 (Accessed 23.01.2021)

Kazakova, O.P. Metodika raboty s posterami pri obuchenii inostrannomu yazyku dlya special'nyh celej. YAzykovoe obrazovanie segodnya - vektory razvitiya. Materialy ezhegodnoj mezhdunarodnoj nauchno-prakticheskoy konferencii-foruma. Ural'skij gosudarstvennyj pedagogicheskij universitet; Ural'skaya asociaciya prepodavatelej anglijskogo yazyka «ELTA-URALS». Ekaterinburg, 2018. S.32-37.

Kondakov, V.L.; Kopeikina, E.N., Voloshina, I.G.; Usatov, A.N. (2019). Main directions digitalization in the higher education in the world and Russia (Based on the example of physical culture and sports). *Universal Journal of Educational Research* 7(10B): 47-52. [https://doi.org/ 10.13189/ujer.2019.071810](https://doi.org/10.13189/ujer.2019.071810)

Korotayeva, E.V. (2013) *Osnovy pedagogiki vzaimodejstvij: teoriya i praktika* [The fundamentals of collaborative learning: theoretical and practical aspects] Monograph. Yekaterinburg, 203 pages

Kholmogorova, O.I. (2019). Obuchenie v Sotrudnichestve: Novye Vozmozhnosti [Collaborative learning: new opportunities]. *Problemy sovremennogo pedagogicheskogo obrazovaniya. [Problems of modern pedagogical education]*, 64-4, 262-265.

Kondratenko, O.A. (2013). Didakticheskie principy realizacii kognitivno-vizual'noj tekhnologii v distancionnom obuchenii studentov [Didactic principles of cognitive-visual technology implementation in distance learning of students] *Teoriya i praktika obshchestvennogo razvitiya. [Theory and practice of social development]*. №6. 83-90.

Kovyleva, U.E. (2009) Deyatel'nostnyj podhod pri organizacii Gruppovoj raboty starsheklassnikov [Action approach to organizing high school seniors' team work]. // *Obrazovanie i nauka. 2008. № 1 (58) [Education and science.,] 1 (58)*, 110-119.

Kuzmina, A.V. (2016). Mental'naya karta Mindmeister kak instrument vizualizacii dlya pereskaza teksta na anglijskom yazyke [Mindmeister mental map as a visualization tool for retelling text in English] VI vserossijskaya nauchno-prakticheskaya internet-konferenciya (s mezhdunarodnym uchastiem) «Inostrannye yazyki i globalizaciya obrazovaniya: potencial mezhpredmetnyh svyazej» [VI All-Russian scientific and practical Internet Conference (with international participation) "Foreign languages and the Globalization of education: the potential of interdisciplinary relations"]. URL: http://rgf.tversu.ru/websites/29/ckeditor_assets/attachments/7692/Kuzmina-2019.pdf.

Li, F., Ge, L., Wang, J., Liu, F. (2019) Applied participatory learning for teaching professional English to students majoring in nuclear disciplines in China. *Integration of education, Vol. 23, #2*, 182-195. [https://doi.org/ 10.15507/1991-9468.095.023.201902](https://doi.org/10.15507/1991-9468.095.023.201902)

Masalkova E.V. (2014). Princip ucheta rodnogo yazyka pri obuchenii grammaticheskoy storone anglijskoj rechi na staršem etape srednej shkoly [Teaching English Grammar at Senior High School Taking into Consideration the Native Language]. *Psihologiya i pedagogika: metodika i problemy [Psychology and pedagogy: methodology and problems of practical application]*, #40, 76-80.

Mazunova, R. F. Hasanova, L.K., (2010). Principy sozdaniya sovremennogo uchebnika po inostrannomu yazyku [Principles of creating a modern foreign language textbook]. *Vestnik Bashkirskogo universiteta*. [Bulletin of the Bashkir University] T. 15. №3, 831-834.

Nikitenko, O.A. (2013). Formirovanie integrativnoj osnovy obucheniya inostrannomu yazyku v magistrature neyazykovogo vuza posredstvom informacionno-kommunikacionnyh tekhnologij [Formation of an integrative basis for teaching a foreign language in the magistracy of a non-linguistic university through information and communication technologies.] Avtoref. Kand.diss. [Author's abstract of PH.D. diss.] SPb., Izd-vo Politekhn. un-ta, 2013. 26 p.

Neklyae, S.E. (2010). Infografika: principy vizual'noj zhurnalistiki [Infographics: principles of visual journalism] *Vestnik Moskovskogo universiteta. Zhurnalistika*. [Bulletin of Moscow University. Journalism]. № 4. 53-66.

Nikulova, G.A., Podobnyh, A.V. (2010). Sredstva vizual'noj kommunikacii – infografika i metadizajn [Means of visual communication - infographics and metadesign] *Obrazovatel'nye tekhnologii i obshchestvo* [Educational technologies and society]. №2. Tom 13. 369-387.

Peskova, O. V. (2012). O vizualizacii informacii [On visualization of information] *Vestnik MGTU im. N. E. Baumana. Inzhenernyj zhurnal: nauka i innovacii*. [Vestnik of N.E.Bauman MGTU. Engineering Journal: Science and Innovation] № 1 (1). 158–173.

Radchenko, Yu.Yu. (2018). Infografika kak sposob predstavleniya uchebnoj informacii [Infographics as a way of presenting educational information]. *Pedagogicheskij zhurnal*. [Pedagogical journal]. T. 8. № 5A. 145-152.

Reznik, N. A. (2011). Model' vizualizacii uchebnogo kontenta v sovremennom informacionnom prostranstve [Model of educational content visualization in modern information space]. *Zhurnal nauchno-pedagogicheskoy informacii* [Journal of scientific and pedagogical information] № 4. 110–143.

Robert, I.V. (2010). Sovremennye informacionnye tekhnologii v obrazovanii: didakticheskie problemy; perspektivy ispol'zovaniya. [Modern information technologies in education: didactic problems; prospects of use] M., 140 p.

Solovova, E. N. (2008). Metodika obucheniya inostrannym yazykam: prodvnutyj kurs: posobie dlya studentov ped. vuzov i uchitelej [Methods of teaching foreign languages: an advanced course: a guide for

students ped. universities and teachers]. – M.: AST: Astrel', 272 p.

Syrina, T. A. (2016). Kognitivnaya vizualizaciya: sushchnost' ponyatiya i ego rol' v obuchenii yazyku [Cognitive visualization: the essence of the concept and its role in teaching language]. *Vestnik Tomskogo gosudarstvennogo pedagogicheskogo universiteta* [Bulletin of Tomsk State Pedagogical University]. № 7 (172). 81–84.

Tsatsulina E. V. Ispol'zovanie metoda mental'nyh kart pri obuchenii inostrannomu yazyku. [Use of the mental maps method in teaching a foreign language] URL: http://www.ulspu.ru/upload/img/medialibrary/b6b/tsatsulina_saratov_statya.pdf

Tafazoli, Dara. (2013). Wordling: using word clouds in teaching English Language international journal of instructional technology and distance learning August 2013 Volume 10 Number 8. 53-58.

Zhigareva, A. A. (2011). Konceptii vizualizacii: stanovlenie, razvitie, formy proyavleniya [Concepts of visualization: formation, development, forms of manifestation]. *Nauchnye problemy gumanitarnykh issledovaniy* [Scientific problems of humanitarian research] № 7. 273–281.