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Important constraints in teaching foreign languages

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Abstract: *The article analyzes the didactic constraints and methodological decisions that determine the effectiveness of teaching foreign languages to students of mathematical specialties in higher education institutions, in particular at Kyiv National Taras Shevchenko University. The focus is placed on the problem of selecting, structuring and pedagogically supporting instructional materials within ESP courses where linguistic training is combined with professional content. The growing importance of international academic mobility, access to foreign-language research sources and participation in professional communication increases the need for accurate command of terminology as well as the ability to interpret logical proofs, graphical models and symbolic structures.*

The study generalizes contemporary approaches to materials development and demonstrates that real classroom practice is shaped by time limitations, different levels of students' preparedness, the complexity of mathematical discourse and the necessity to develop receptive and productive skills simultaneously. The paper considers ways of organizing a corpus of texts according to rhetorical functions, topics and sources, characterizes the principles of using authentic materials, and describes mechanisms for integrating lexical, grammatical and professional components.

Special attention is paid to exercise planning, the development of contextual guessing strategies, the use of monolingual dictionaries, and the formation of argumentation and critical evaluation skills. The methodological potential of audio-visual tools, group discussions, project work and meetings with field experts is outlined. Approaches to testing and multi-level course evaluation through continuous



student feedback are presented. The feasibility of systematic materials design based on theoretical validity, practical applicability and teachers' professional growth is substantiated.

The proposed vision emphasizes that instructional resources should stimulate cognitive activity, provide opportunities to use language in professional situations and foster understanding of scientific reasoning. Implementation of these principles creates conditions for sustainable motivation of future mathematicians and for their integration into the international academic environment.

Keywords: *audio-visual materials, ESP, evaluative exercises, group discussion, experimental basis, visual reasoning.*

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***Анотація:** Статтю присвячено аналізу дидактичних обмежень і методичних рішень, що визначають ефективність викладання іноземних мов студентам математичних спеціальностей у закладах вищої освіти, зокрема в Київський національний університет імені Тараса Шевченка. У центрі уваги перебуває проблема добору, структурування та педагогічної підтримки навчальних матеріалів у курсах ESP, де поєднуються мовна підготовка і професійний зміст. Зростання ролі міжнародної академічної мобільності, доступу до іноземних джерел та участі у фахових комунікаціях актуалізує потребу у точному володінні термінологією, умінні інтерпретувати логічні доведення, графічні моделі та символічні структури.*

Дослідження узагальнює сучасні підходи до створення матеріалів і доводить, що реальна аудиторна практика формується під впливом часових рамок, різнорівневої підготовки здобувачів, складності математичного дискурсу та необхідності паралельного розвитку рецептивних і продуктивних умінь. Розглянуто способи організації текстового корпусу за риторичними функціями, тематикою та джерелом походження, охарактеризовано принципи



використання автентичних матеріалів, а також механізми інтеграції лексичної, граматичної й професійної складових.

Значну увагу приділено плануванню вправ, формуванню навичок здогадки за контекстом, роботі з одномовними словниками, розвитку аргументації та критичного оцінювання змісту прочитаного. Описано методичний потенціал аудіовізуальних засобів, групових дискусій, проєктної діяльності, зустрічей із фахівцями галузі. Представлено підходи до тестування та багаторівневої оцінки якості курсів через постійний зворотний зв'язок від студентів. Обґрунтовано доцільність системної розробки матеріалів на основі поєднання теоретичної валідності, практичної придатності та професійного розвитку викладача.

Запропоноване бачення підкреслює, що навчальні ресурси мають стимулювати пізнавальну активність, забезпечувати можливість застосування мови у фахових ситуаціях і сприяти усвідомленню логіки наукового мислення. Реалізація таких принципів створює умови для стійкої мотивації майбутніх математиків та їх інтеграції у міжнародний академічний простір.

Ключові слова: англійська мова за професійним спрямуванням, аудіо та відео матеріали, дискусія в групі, експериментальна основа, оцінювальні вправи, символічне та візуальне мислення.

Problem statement. The training of future mathematicians in the context of the internationalization of higher education and the active integration of Ukrainian universities into the global academic space leads to increased requirements for proficiency in foreign languages for professional and scholarly communication. Work with proofs, formalized descriptions, symbolic structures, graphical models and complex logical reasoning requires students to interpret specialized texts accurately, understand argumentation and confidently use mathematical terminology in another language. Under such conditions, a foreign language becomes a tool for access to



international research resources, academic mobility and professional cooperation.

Educational practice shows that the achievement of these outcomes largely depends on the quality of instructional materials, the principles of their selection, their organization and the methods of pedagogical support. The design of an ESP course for mathematicians is influenced by a number of factors, including students' diverse levels of preparation, limited classroom time, the need to combine linguistic and professional components, and the necessity to maintain interest in mastering complex terminology. The real conditions of teaching create a system of constraints that affect the choice of texts, the format of exercises and the balance between receptive and productive activities.

Reconsidering the role of instructional materials in this context involves taking into account communicative relevance, professional applicability and the possibilities of integrating different modes of presenting information. The search for a balance between theoretical models of language learning and the practical realities of classroom work highlights the need to develop effective approaches to materials design. For this reason, the analysis of constraints that determine the effectiveness of teaching foreign languages to future mathematicians becomes particularly important.

Review of recent research and publications. Contemporary research in the field of teaching foreign languages for specific purposes demonstrates a growing interest in the problem of selecting and designing effective instructional materials. Scholars examine methodological, cognitive and technological dimensions of ESP instruction, paying particular attention to the needs of students of mathematics, for whom terminological precision, the ability to work with logical argumentation, graphical and symbolic representations, and readiness to use a foreign language in professional and academic contexts are of primary importance.

The study by Fursenko O. et al. focuses on approaches to designing English-language Moodle content for mathematics courses. The scholars analyze the principles of terminology selection, ways of integrating linguistic and subject components, and



requirements for structuring digital materials. The proposed solutions demonstrate the potential of the electronic environment for developing students' professional communicative competence [1].

The issue of interaction between several languages in the process of learning mathematics is examined by Snizhko N. The research concentrates on the cognitive consequences of combining the native, foreign and mathematical languages and on the impact of such integration on comprehension. The outlined approaches open new opportunities for improving work with terminological materials in ESP courses [2].

The theoretical foundations of foreign language training for future teachers of science and mathematics are systematized by Kravchuk T. The publication summarizes Ukrainian and international practices of developing professional language competence and identifies current challenges and directions for modernization. The conclusions emphasize the importance of authentic materials and professionally relevant vocabulary [3].

The development of English academic communication skills of master's students is addressed by Kyrykulytsia V. et al. The authors substantiate the need for purposeful work with academic texts and for training in interpreting and presenting research results. The proposed approach strengthens the role of materials as an instrument for students' integration into the international scientific community [4].

Innovative opportunities created by combining EMI and digital technologies are analyzed by Novak I. et al. Particular attention is paid to the use of artificial intelligence for content adaptation, support of individual learning trajectories and enhancement of student engagement. The ideas presented encourage a reconsideration of the principles of ESP material development [5].

Ways of increasing learning motivation in professionally oriented language instruction are highlighted by Babenko K. The research proves the effectiveness of practice-oriented tasks reflecting real situations of future professional activity. The



suggested tools contribute to more active acquisition of specialized vocabulary and communicative skills [6].

Specific features of teaching Business English to students of non-linguistic specialties are investigated by Kotliarova L. Emphasis is placed on the necessity of flexible adaptation of materials to professional needs and learners' backgrounds. Practical orientation is viewed as a prerequisite for confident language use in occupational contexts [7].

Current difficulties in organizing foreign language instruction in non-linguistic higher education institutions are outlined by Shmelkova H. et al. The researchers propose a set of measures aimed at updating content, broadening methodological tools and increasing student interest. The recommendations highlight the importance of well-designed materials for achieving learning outcomes [8].

Enhancing motivation through gamification is considered by Panchenko V. et al. The study demonstrates that interactive formats and competitive elements foster deeper consolidation of terminology and greater cognitive involvement. The proposed strategies expand the teacher's toolkit in selecting effective exercises [9].

A three-dimensional model of developing foreign language communicative competence under contemporary conditions is proposed by Kriukova Y. The concept integrates linguistic, professional and sociocultural dimensions of training and orients instruction toward practical application. Such a structure reinforces the requirements for the functionality and relevance of teaching materials [10].

Unresolved issues of the general problem. Despite the considerable number of studies devoted to improving foreign language training for students of mathematics, a range of important aspects remains insufficiently explored. Existing research mainly focuses on digitalization, the integration of bilingual approaches, the development of academic communication, or the enhancement of learners' motivation, whereas the issue of how instructional materials function within a specific course is often treated only fragmentarily.



The relationship between theoretical models of materials design and the practical realities of classroom work requires deeper analysis, since teaching is shaped by time constraints, students' levels of preparation, the complexity of mathematical content, and the need to develop linguistic and professional skills simultaneously. Mechanisms for adapting authentic texts to instructional purposes, as well as ways of maintaining a balance between receptive and productive activities, also remain inadequately described.

Further consideration should be given to the problem of determining criteria for the effectiveness of materials that can sustain students' interest while ensuring terminological accuracy and the development of argumentative skills. The absence of an integrated view of these factors makes it difficult to elaborate a coherent methodological strategy for teaching foreign languages to future mathematicians.

Purpose of the article (objectives of the study). "Theory in context free; but teachers face a number of important constraints in their work" (Bowers)

The objective of this article is to define the role of materials in English (French) classes[11]. While all of the ESP programs share common general objectives, they have individual specific objectives. Therefore, the choice of materials to carry out those objectives can be decided in three different ways:

- according to rhetorical function;
- according to topic or theme;
- according to source of text (i.e. textbook, professional journal, etc.)

Presentation of the main research material. These decisions are made in view of the special circumstances of each ESP course. The English (or French) for Mathematics teacher or materials developer found the use of rhetorical function the most natural way to determine the choice of texts, since the subject matter of that area deals so frequently with classification, division, comparison and contrast, definition, etc.



The specific objectives selected for each ESP course are formulated by following common norms and utilizing similar formats as far as possible. They are necessarily different for each course, since the needs which arise out of the necessary analysis are different. It is nonetheless possible to identify certain core objectives common to all courses, which are listed with the purpose of giving an overall view of what all ESP programs have in common. Hence, reading skills are regarded as the principal objective for all courses, followed by listening comprehension while speaking and writing are classified as secondary objectives [12].

Material production

In all cases, authentic texts are usually used as the basis for materials production. "Authentic" may be used to mean either materials which the students are using in their academic subjects concurrently with their ESP program, or materials similar in content and style to those which they are or will be using in their academic subjects [13].

As well as using graded language, authentic texts are largely written in order to a specific language point: a grammatical form or collection of lexical items, and are extremely effective tools for focused learning. In contrast, authentic texts may be considered more "natural", in that they contain a variety of forms and lexical items. This not only helps learners observe how language items work in harmony, but also helps prepare them for more real-world communication. In both authentic reading and authentic listening texts, learners are exposed to unregulated native speaker language, and so are more likely to encounter language not found in course books [14].

In terms of structure, there is a general approach to deal with structural difficulties within the texts as they arise. That is, if a student requires some help in understanding some difficult grammatical structure it may be explained in class. Some courses have incorporated exercises based on grammatical structures in the text.

Planning the Exercises

Which vocabulary to teach is also determined by the text at hand. Exercises are developed to encourage guessing at the meaning of unknown words by using



contextual suggestion. The use of a monolingual dictionary is also encouraged when the student must determine which of several possible meanings of a word is the appropriate one for the context. Vocabulary exercises are being elaborated in a variety of ways. In the ESP courses which deal with more mathematical fields, such as Mathematics, there is a greater emphasis on mathematical vocabulary.

Rhetorical functions form the basis for the syllabus of one ESP course (English, French for the students of mathematics). As with structure, rhetorical functions are pointed out and explained when and where they occur in a text. After students have dealt with a function in several texts, they might then be asked to recognize the function in a subsequent text.

Evaluative exercises are part of most course materials. After having gone through the text using a variety of the of the abovementioned exercises, the student is then asked to evaluate the content according to his own criteria, comment on his applicability to his own current interests, etc.

Criteria may also be provided by the teacher or suggested by outside sources such as the scientific approach of the particular field of study. These activities are motivating because they allow students to express their own ideas in relation to the topic and it involves them at a higher level than just reporting what was the text.

Methodological Aspects for ESP Course

The following methodological aspects may be utilized during an ESP course:

- the use of audio-visual materials;
- printed texts with accompanying exercises;
- group discussions, presentation of prepared projects;
- talks given in English (French) by invited experts in the students' field. Work in the area of testing covers two main sections:
 - development of tests, which takes place concurrently with materials production;
 - evaluation of testing procedures.



As for material production, it is necessary to distinguish between what is actually being done on an experimental basis and what is projected for the future.

Sometimes, tests are teacher-made and tailored to the specific objectives focused on in a given unit or group of units.

In this respect, there are achievement tests since they are used to determine whether the student has achieved the objectives covered in a particular phase of the course.

The evaluation of the ESP courses themselves is conceived of as being short term as well as long term. On a short term basis, steps have already been taken to evaluate the materials and testing procedures used. Specifically, these steps consist of the administration of a questionnaire which students are asked to fill out at intervals throughout each course. In this way, an attempt is made to determine the usefulness, relevance and degree of interest aroused by the materials used so as to arrive at a decision as to whether specific readings, films, exercises etc. should be retained, modified or discarded. In addition to providing feedback from students with regard to the course material and the relationship between these and accompanying exercises and audio-visuals, the questionnaire elicits information concerning the extent to which testing procedures are perceived as relevant to the course work.

A Material Development Project

Any individual teacher can prepare a set of materials partly himself, partly from a selection of available sources. A material development project aims to eliminate some of the hit-and-miss procedures of materials production by: 1) using a coherent methodology; 2) being based on teacher planning and teacher evaluation.

The considerable investment that such a project demands can only be justified if: 1) the materials can claim some theoretical validity (they must take into account current models); 2) the materials are pragmatically valid (they must be capable of being used effectively by the teachers and students they were intended for); 3) the experience in using the materials helps increase the professional competence of



teachers to higher standards of achievement of students; 4) the materials and the experience acquired in producing them are ultimately of benefit to the major institutions which share the relevant curriculum setting.

Planning the Materials

What are materials supposed to do? In defining their purpose, we can identify some principles which will guide us in the actual writing of the materials.

Materials provide a stimulus to learning. Good materials contain:

- special texts;
- opportunities for learners to use their knowledge and skills;
- materials help to organize the teaching-learning process;
- materials embody a view of the nature of language and learning [13: 107].

Besides, we attempt to make texts and exercises rather interesting and relevant by choosing inter-disciplinary topics of general academic interest and to include study skills useful in a variety of disciplines.

Production and Use of Materials

The fact that materials need to be used as sources rather than as pre-constructed courses should not be regarded as a weakness of task-based teaching; it can in fact be a strength for any form of teaching. When what is done in the classroom involves a decision made by the teacher, a student has a reason to feel personally satisfied or dissatisfied with the way in which it takes place [15].

The teacher can benefit from the opinions of students and teachers outside the project group in the following way:

- general discussions of the aims and methods of the material; anticipation of difficulties;
- comments and suggestions on individual texts and exercises after use in class involving suggested changes, reduction, expansion;
- indication of any supplementary material used;



- production of texts - this is being done largely by teachers in consultations with the group and it gives valuable insights on the purpose of the materials.

Training and assistance to teachers has so far taken the following forms:

- "orientation" seminars to familiarize teachers with the aims and methods of the material;

- pre-teaching seminars containing demonstration lessons, group planning of units, discussions of teaching techniques;

- teachers' meetings during experimental use of the material is to foresee problems, discuss doubts, collect evaluations, observe classes, discuss modifications of the material.

The main teachers' aims are: 1) to provide a model of recommended teaching techniques; 2) to allow the teacher to adapt the material to his own circumstances and to develop skills of interpreting the material and supplementing it with his own ideas. This is necessary in order to provide motivation, additional examples, judgement of the acceptability of students. Contributions, choice of teaching procedures, etc.; 3) to provide the teacher with a confident understanding of the fundamental purpose of the material so that he can convey this to the students and become an innovator himself [16].

Material Analysis

The students of Mathematics are those who need the English (French, etc.) language skills for specialist purposes. It provides a sound basis for the study of profile subjects in English or another foreign language. Moreover, it ensures complete motivation through interesting situations and enjoyable language activities.

The concept-building "core" of the series is the General Science course. Related to this core there are some specific courses for different subjects, of which Mathematics is one. General Science presents aspects of language use common to all disciplines. Mathematics exploits the same aspects within the context of the subject and develops reading, writing and listening comprehension [17].



Introduction to Nucleus: Mathematics

The aim of the Mathematics course is to develop in the student a competence in using English (French) both actively and receptively in order to extract information from written and oral texts and from visual forms of presentation and to develop the student's ability to follow continuous arguments. Usually textbooks include some aims: 1) aims of the Teacher's Notes; 2) the language content; 3) the scientific content; 4) methods of scientific study; 5) how to teach the course [17].

Every unit must include one or several mathematical texts, aims (e.g.: to present the difference between visual and symbolic reasoning in mathematics); main language items (e.g. statements in the simple present which classify diagrams, opening up various types of visual reasoning: singular + a/an e.g. : a picture is less formal than symbol; plural without article: e.g. : pictures are less formal than symbols. Description of property: noun phrase + be + adjective phrase: Coordinates are one of those simple ideas that ... Noun phrase + verb + noun phrase: Fourier analysis rapidly became the test case for ideas...

Criteria to be applied to each activity

- Purpose - Is the purpose clearly defined?
- Type - Does the exercise type effectively and economically accomplish the purpose?
- Content - Are instructions to students clear?
- Interest - Is it interesting?
- Authenticity - Is it a meaningful task? Is it challenging?
- Difficulty - Does it contain distracting difficulties?

Conclusion

In any way variety is necessary – to avoid boredom created by guidance. To find various communicative written practice, we should integrate e.g. writing with other classroom activities, such as reading practice followed by listening and speaking practice. Therefore, writing can take place as part of a natural sequence of learning



activities. Audio-visual materials should also be used to provide a more open-ended framework for writing activities of different kinds. These activities are designed to involve students in solving different problems. This requires them to use their background knowledge and the other sources of data to solve the given task. This is related to students' needs and interest and therefore, motivates them. Materials facilitate a learner self investment, provide the learner with opportunities to use the target language to achieve communicative purposes [18].

References:

1. Fursenko O., Udodova O., Chernovol N. On filling English-language Moodle content for mathematics disciplines. *Education. Innovation. Practice*. 2024. Vol. 12, No. 9. P. 95–102. URL: <https://www.oip-journal.org/index.php/oip/article/download/430/312>
2. Snizhko N. Bilingual teaching of mathematics through the prism of language interaction: cognitive consequences of integrating the native, foreign and mathematical languages. *Bulletin of Bohdan Khmelnytsky Cherkasy National University. Series "Pedagogical Sciences"*. 2025. No. 3. P. 101–107. URL: <https://new.ejournal.cdu.edu.ua/pedagogics/article/download/184/175>
3. Kravchuk T. O. Theoretical foundations of foreign language training of future teachers of science and mathematics: the current state in Ukraine and worldwide. *Pedagogical Academy: Scientific Notes*. 2025. No. 25. URL: <http://pedagogical-academy.com/index.php/journal/article/download/1505/1372>
4. Kyrykulytsia V. V., Trotsiuk A. M., Yasinska O. V. Formation of knowledge of scientific communication in English among master's students of science and mathematics specialties. *Collection of Scientific Works of Uman State Pedagogical University*. 2022. No. 1. URL: <https://evnuir.vnu.edu.ua/bitstream/123456789/20675/3/256190.pdf>



5. Novak I. M., Trotsko V. V. EMI+AI: innovative solutions in teaching general disciplines in English. *Academic Visions*. 2025. No. 47. URL: <https://www.academy-vision.org/index.php/av/article/download/2180/2051>
6. Babenko K. Means of increasing students' learning motivation in teaching a professionally oriented foreign language in the field of computer science. *Bulletin of Bohdan Khmelnytsky Cherkasy National University. Series "Pedagogical Sciences"*. 2022. No. 1. P. 79–84. URL: <https://ped-ejournal.cdu.edu.ua/article/download/4495/4770>
7. Kotliarova L. B. Business English for specific purposes for higher education students of non-linguistic specialties. *Bulletin of the T. H. Shevchenko National University "Chernihiv Collegium"*. 2023. Vol. 179, No. 23. P. 66–71. URL: <https://visnyk.chnpu.edu.ua/index.php/visnyk/article/download/223/241>
8. Shmelkova H., Ubeivolk O., Yudina O., Viazova R. V. The problem of teaching foreign languages in non-linguistic higher education institutions and ways of solving it. *Academic Studies. Series "Pedagogy"*. 2024. No. 1. P. 81–87. URL: <http://academstudies.volyn.ua/index.php/pedagogy/article/download/578/540>
9. Panchenko V. V., Radavska O. M., Onyshchenko I. A. Gamification as a tool for increasing motivation of students of science and mathematics specialties in learning foreign languages. *Pedagogical Academy: Scientific Notes*. 2025. No. 22. URL: <https://pedagogical-academy.com/index.php/journal/article/download/1300/1173>
10. Kriukova Yu. D. A three-dimensional model of the formation of foreign language communicative competence of students of non-linguistic specialties or professional education in current conditions. *Innovative Pedagogy*. 2025. Vol. 1, No. 84. URL: https://evnuir.vnu.edu.ua/bitstream/123456789/28934/1/kriukova_IP_2025.pdf
11. Richards J. C. *The role and design of instructional materials*. Cambridge: Cambridge University Press, 2010.



12. Hutchinson T., Waters A. *Learning – central approach*. Cambridge: Cambridge University Press, 1987.
13. Dolanyi A. *Towards a systematized approach to syllabus design and materials production for ESP courses*. Copenhagen, 1981.
14. Blue J. *Exploiting authentic texts in the English language classroom*. Macmillan Education, 2020. URL: <https://www.macmillanenglish.com/ua/blog-resources/article/advancing-learning-exploiting-authentic-texts-in-the-english-language-classroom>
15. Lightbown P. M. Great expectations: second language acquisition research and classroom teaching. *Applied Linguistics*. 1985. Vol. 6, No. 2.
16. Prabhu N. S. *Second language pedagogy*. Oxford: Oxford University Press, 1987.
17. Solovey N., Letunovska I. *English for students of mathematics. English for ESP (for correspondence students of the Faculty of Mathematics and Mechanics): methodological guide*. Kyiv: Taras Shevchenko National University of Kyiv, 2025. 81 p. URL: https://mechmat.Knu.ua/wp-content/uploads/2025/05/esprevised-for-c_s2025pd
18. Iqbal N. *Types and role of materials in ELT*. Uzbekistan: Ministry of Preschool and School Education, 2025.