

# Mastering the Genre of a Hands-on Training Report in the Professional Competence of Bachelor Students Majoring in Construction Engineering

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**Abstract**—The study is devoted to solution of a relevant issue of formation of a genre of writing competence by bachelors majoring in construction engineering. The authors describe the genre of a hands-on training report and its varieties functioning in tuition, research and professional communication. The reasonability of introducing the genre of a report commonly used by professionals and in professional education into the bachelor's degree curricula in the course "The Russian Language and its Speech Culture", next to general cultural competences, is substantiated. The methodology of forming a genre competence of construction engineering bachelors is proposed, in which the ideas of genre-stylistic, cognitive, and activity-based approaches to the content and organization of tuition are implemented. In forming the genre competence, the authors use an integrated typological model of a scientific and educational genre of a report, which they have developed.

**Keywords**—genres as an object of linguistics and learning methodology, genre competence, a hands-on training report, a typological genre

## I. INTRODUCTION

In accordance with the current educational standard for teaching construction engineering (the level of a bachelor's degree), a graduate is supposed to master the genres of scientific and business writing, which form the basics of the general cultural, general professional and professional competences. An important indicator of a bachelor's quality preparation in construction engineering is successful mastering of the language used in the field; therefore, the teachers of Russian and of the speech culture form a number of general cultural competences in the students and help the students to master the communicative components of their professional competence. The issues of teaching professional writing and the genre-based approach to education require the appearance of new methodological ideas and solutions, which would correspond to the requirements of modern educational and professional standards.

## II. METHODS AND MATERIALS

The theoretical foundation of this research is the works by the Russian linguists and methodologists, the Russian and foreign scientific literature (monographs, papers in periodicals related to the issues of genre studies, linguistic dictionaries and electronic resources).

The basic studies guiding the authors include the research in:

- the theory of functional stylistics, including that focused on linguistic and didactical description of the style of scientific writing (N.M. Razinkina, T.V. Matveeva);
- genre studies and the theory of speech genres and the genre-based approach to speech development (M.M. Bakhtin, K.F. Sedov, A.G. Baranov);
- the theory of cognitive linguistics (the theory of a cognitive type) by A.G. Baranov, basically revised and proposed by the authors in their own interpretation.

Scientific, methodological and educational literature, papers dealing with the use of the genre-based and cognitive approaches in teaching scientific and business writing in Russian, and the methodology of teaching Russian in colleges not specialized in linguistics were used as material for the scientific and methodological study.

The authors also appealed to the fundamental philosophical provisions on the social and activity-based nature of Man, on the unity of the theoretical and empirical approaches in scientific studies and in education, they used their own professional expertise and considered the repeatability of the experimental data.

In preparing the paper, the authors used the following methods:

- *Theoretical methods:*
  - Analysis and synthesis of knowledge derived from linguistic, methodological and educational literature relating to selection of theoretical and methodological material for teaching Russian in tertiary education;
  - Analysis of periodicals relating to architecture and construction engineering, aiming at description of the sub-language of construction engineering and architecture;
  - Summarizing the best practices of teaching Russian in a non-linguistic college;
- *Empirical methods:*

- distributing questionnaires among students to find out the most relevant scientific genres and to encourage them to estimate their own levels of mastering the genres;

- modelling the teaching methodology and the system of knowledge;

- holding a forming experiment aimed at checking the effectiveness of the developed methodology of forming genre competencies, etc.;

- *Statistical methods:*

- qualitative and quantitative analysis of the results of hands-on training;

- a statistical method of processing the results obtained.

The main principles ensuring achievement of the goals pertaining to the model of forming a genre competence of the students presented in the paper are the following:

- principle of scientific value;

- principle of considering motivation and the needs of students;

- professional orientation (considering the students' specialization);

- regular control principle;

- feedback principle (interactivity);

- use of innovative technologies in education.

### III. RESULTS

Professional competence is usually viewed in terms of professional requirements for a specialist. Analysis of the curriculum and the course programs relating to the indicated field of knowledge allowed us to conclude that already the first-year students are supposed to have skills of speech and writing used in science and education. They should be able to make summaries and reviews, to prepare a presentation based on a summary or a review, to make a presentation at a student conference, and to make a presentation at a seminar. Mastering speech and writing in any professional field presupposes an ability to use different genre forms, which are present in the "conscience of a language-using person as frames affecting the process of transformation of an idea into words" [1].

In the context of any professional training, special attention is paid to the genre competence, which is followed by the mastery of scientific genres of writing, as we consider this competence to be the principle component, the key link of the phenomenon of a professional communicative competence [2].

The principle of a genre-based approach solves professional communicative tasks under conditions of teaching in the best way. We define the genre competence of the students as "*readiness* for modelling scientific texts of different genres (the ability to choose a scientific genre from the variety of types caused by the purpose and function of communication in accordance with the communicative situation and to present it

in accordance with a socially approved model, implemented by adequate linguistic constructs and stylistic devices)" [2].

In the framework of this competence, a student forms a concept of the vocabulary and means of presentation characteristic of a professional sub-language [3] – the sub-language of construction engineering taught in colleges. As a result, a student should have an idea of the vocabulary of a construction engineer/technician and should be able / ready to use this vocabulary. Vocabulary and grammatical constructs characteristic of the construction sub-language should be included into the classroom and home tasks, as well as into the learning texts: this vocabulary and these constructs may be used for forming the structural element (subgenre) of a report titled "Terms and Definitions".

For example, terms and word combinations are characteristic of the construction sub-language, which describe technological approaches and are expressed by verbal nouns: *baking, pressing, melting, heating*. These include names of the objects of construction: *a stress mould, a traveling crane, a pan vibrator*, means of activity: *reinforcement steel, autoclaved cellular concrete, hot-rolled steel reinforcing rods, etc.*

Constructs are widespread containing the preposition 'for' ("*Spans are meant for construction of public buildings*"; "*Pavement slabs are meant for paving motor roads*"). Passive constructs prevail, containing predicates expressed by past participles ("*Checkpoints are equipped with devices...*", "*Floor trucks are used for carrying the products*"; "*The spans are equipped with concrete distributors*", etc.). In the Russian grammar, reflexive forms of verbs are used, as well as impersonal constructs ("*They make such slabs out of concrete...*").

The genre of a report occupies a special place among the genres of professional speech and writing that are to be mastered by the students. However, in the textological sense, this genre has not yet received due attention and remains to be a white spot in the methodology of teaching Russian in colleges.

The ability to make reports based on the works done and to take part in promoting the results of studies and practical work is referred to professional competencies in the acting professional standard in the field of construction engineering. The genre of a *report* as a mandatory attribute of forming a genre competence in tertiary education is included only into special courses, which do not deal with the linguistic, stylistic and extra-linguistic aspects. The teachers who teach these courses forming professional knowledge of the subject and respective competences usually demand from their students that they should submit reports but do not teach them how to master this genre [4].

In this regard, we believe it reasonable to include the task of forming the professional competence into the contents of the working program in the course of the Russian language and the culture of speech, identifying a special module in it, to enable bachelor students of construction engineering to master it.

We can now discuss the genre of a *report* in more detail. From the viewpoint of modern linguistics, a report is a conventionalized type of a text, which has socially and historically relevant rules (standards) of preparation and of selection of linguistic devices. Conventionality is manifested in the structure and division of texts, in lexis, syntax, and punctuation, as well as in set structural components of the text, typical phrases with a standard structure of clichés and set expressions [5].

In terms of the communicative goal, the genre of a report refers to information genres and is defined as a text containing a message, written or oral, on the results of the author's activity, actions or work. In the definition provided by T.V. Matveeva, a *report* is "an information genre of an official business style of speech, an official detailed statement on the work done meant for an executive, meeting, or an organization" [6]. A *report* is also defined as a document containing information on the results of activity over a certain period and submitted to a head of a structural subdivision or to a superior authority" [6]. Veracity, completeness, the reviewing capacity, intelligibility and clarity are viewed as principles of due provision of information in a report [5].

In terms of contents, the genre of a report "is based on facts demonstrating the progress and the results of the work done". These facts are grouped into a certain logical system commensurable with the preliminary workplan, and can be presented as diagrams, schemes, and tables. The deictic aspect of a report includes such parameters as time (*the beginning–end of a reporting period*) and the place of its generation. Attention is focused on the results of the person submitting the report [7]. In this case, a text is generated, which has the features of a monologue written by the author. A scientific and business report may be also written about the activities of a certain working team, a certain production unit or organization over a prescribed period. An important feature of many modern reports describing the activities of a production company consists in creating its positive image.

Cognitive information is the dominating type of information in the text of a report, which is expressed in objectiveness of the information presented, based on actual facts, and in the relatively compact character of the information. As a report is a comprehensive type of a text with an integrative communicative purpose, all kinds of information closely interact in the text [5].

As a complex type of a text, a report, in terms of its perception by the reader, is characterized by the possibility of its reading by parts, if necessary, not from the beginning to the end (subgenres) [5].

The genre of a report has different varieties, represented at different stages of learning: a report on hands-on training, a report on pre-qualifier training, a report on scientific work generated by a graduate student, and a report on scientific work. We refer these reports to the scientific and business substyle of the scientific style. A student should be able to master the skills of making such a report in terms of its structure and the

vocabulary used and is supposed to have the skills of its transformation into a form of an oral presentation.

The genre of a *report on hands-on training* is relevant for bachelor students and presents certain difficulties in generating such a report, for example, a report oriented on the professional preparation of students in the area of construction engineering. Although the structure of such departments is different in different colleges, the genre of a *report on hands-on training* refers to informative genres, and its communicative goal, is, according to the individual assignment, to report on the results of work carried out during a hands-on training. A student should be able to formulate the subject, goals, and tasks of the training, to describe the results obtained during the training, to summarize the content of the work and to make conclusions.

In our opinion, such a report, together with the informative feature, should contain a mandatory description of the construction facility and a description of the production technologies involved. At the same time, it may contain intellectual and emotional evaluation and the author's own impressions from working in the production company, his/her personal participation in some special work a student was allowed to do. A positive emotional evaluation of the company's image contributes to raising the trainee's motivation for mastering the profession chosen and to instilling the feeling of individual and collective responsibility in the students and forming creative thinking in them.

At the tertiary stage of education, students are to master two more varieties of the genre of a report.

The genre of a *report on pre-qualifier training*. Upon completion of a full theoretical course, pre-qualifier training is conducted in colleges. The goal of generating a report on report on pre-qualifier training is to summarize theoretical and practical material obtained during the pre-qualifier training and to use it in writing the qualifying paper. A fourth-year undergraduate, ideally possessing theoretical knowledge and having certain professional skills writes such a report.

A *report on scientific work* is generated by a graduate student – this is a written or oral statement on the activities carried out by the researcher, who is preparing for scientific or scientific and educational activities under the leadership of a scientific supervisor. A report is to include a plan and program of performing the stages of the scientific work. The presence of a perlocutory effect pertaining to this genre presupposes a feedback reaction – the genre of *an opinion of a scientific supervisor about a graduate student's work done*, as well as evaluation of the work. Under modern conditions, when a graduate school has become a stage of tertiary education, the sublanguage of the field of the graduate student's knowledge is used in the genre of a *report on scientific work*, although this paper is not to be submitted to the dissertation council.

The genre of a *report on scientific work* should be referred to purely professional genres of the tertiary education. The goal of a specialist's scientific report (an engineer, a researcher) is to inform the public of the research work done. A report usually includes a plan and a program of performing the stages of the

research conducted; a characteristic of the methods used for obtaining the results; description of scientific discoveries and their relevance; conclusions and proposals. A *report on scientific work* is an official document completing a study or a stage of the study. Requirements for this report are stated in the government standard “A report on scientific work”, which relates to the system of standards referring to information, librarian and publishing work.

In scientific literature, in accordance with the communicative-pragmatic function, the professional genres of a *patent*, *specification requirements*, and *specifications* are referred to the scientific and business type. The genre of a *scientific and technical report* refers to the scientific (academic) type, to scientific activity, and to research work conducted by a researcher [2].

In accordance with the idea of advance education, which may be interpreted as provision of knowledge in advance and the activity specially targeted at increasing the volume and level of an individual’s knowledge, each college graduate should be able to learn in the future. In our case, this means the following: a graduate should be ready to produce new genres on the basis of previously gained knowledge about the genre.

Genres have the features of sustainability, regularity (being typical or typological), principal standardization and stereotypy. It is the stereotype text units that “make it possible to deploy the text of a whole work with pertaining genre and functional-stylistic features” [8]. Hence, students need to be oriented on templates, algorithms and models of generating scientific genres, on the linguistic and stylistic devices that may be employed.

In developing the methodology of forming genre competence of students, we made use of the modern cognitive studies based on the theory of speech genres proposed by M.M. Bakhtin, according to which “speech genres are present in the conscience of a language-using individual as frames which influence the process of transforming an idea into a word” [1].

The frame structure is compatible with the cogniotype proposed by A.G. Baranov [9], which is a *mental-linguistic model* (frame), *socio-cultural basis* of theoretical and procedural data for generating and understanding arrays of texts belonging to a certain subject area, including thematic macro-structures, composition schematics of texts and expressions used in creating certain genre varieties of a specific functional style.

In our understanding, a cogniotype has the following characteristics:

- 1) it pertains to a subject field of scientific texts limited to the specialization of the students, construction engineering;
- 2) it contains the composition schematics of scientific texts relating to the genre of a report;
- 3) it includes a set of expressions related in the subconsciousness of the student to the professional scientific and business area of communication and to the sublanguage of construction engineering;

4) it is complemented by the knowledge of generating a meta-text, of using the means of influencing the reader (listener), on the primary and secondary features of the scientific style, means of presentation, etc.

Hence:

1. students are to master the subject knowledge – the concept of information contained in the array of scientific and educational business texts pertaining to construction engineering and should be ready to use it;

2. students are to form understanding of the stereotypic means of expression which exceed “the barrier of information” [8], [10] of a scientific text; of the structural and compositional features, schematics / models of scientific texts belonging to the genre of a *report*, of a standard set of subgenres, which constitute a stable compositional speech entity, and should be able / ready to use them;

3. students are to form understanding of the linguistic means and set expressions pertaining to the communicative purpose of the scientific and business style, considering the sublanguage “Construction” and the specific genre of a report; they should be ready to use them;

4. students are to be ready to use the knowledge obtained relating to the scientific style and to its stylistic varieties, to the language of science, means of expression (description, narration, judgement, definition), to the categorial features of a scientific text (dialogue, evaluation, focus, authorization...), and to the meta-language in generating the varieties of the genre of a *report* [2].

The commonality of written texts of the functional scientific style is expressed in repeatability of the listed features, which allows us to generate a “postulated invariant formula” [11] relating to a number of scientific genres, the structure of which demonstrates a definite order of the sequence of more or less large compositional and structural blocks (subgenres), etc.

As the timing of a university course is limited, it is impossible and unreasonable to teach the students each genre individually. The method of modeling may help the university lecturers to solve the problem of teaching the genre of a report, with a perspective of mastering its numerous variations. A model should be the “approximation of the original”, reproduce “...not all the functions of the original but only a certain complex of it”, it should be close to “functioning of the live language”, and oriented on the use of the language as a means of communication [12].

It is reasonable to develop a typological model of the integrated genre of a report based on the inter-genre model of a scientific text [2].

Under conditions of limited time allocated for a course, it is reasonable to use the modelling method, in order to solve the problem of teaching the genre of a report, with a perspective of mastering its possible varieties. Hence, already in the first year of studies, it is necessary to offer to students an inter-genre model of a scientific text (a summary, a review, an abstract, a presentation, a term paper, a qualifying paper for a bachelor’s and master’s degrees).

As the option of an algorithm-guidelines, *the inter-genre model of a scientific text* includes the following subgenres:

1. substantiating the relevance of the subject;
2. briefing the reader on the history of the issue;
3. naming the unsolved issues in the field;
4. proposing and substantiating new ideas (the solution of the issues mentioned);
5. describing the content of the work;
6. describing the results of the experiment;
7. evaluating the study, its usefulness and effectiveness for the science and for the society [2].

Based on the *inter-genre model of a scientific text*, a typological model of the integrated genre of a *report* is generated. For this purpose, it is necessary to identify the subgenres typical of a report:

- subgenre of the introduction (the goals and the tasks of the training, the object of the study);
- subgenre of the reviewing part (a characteristic of the object of construction, the training base, description of the jobs, description of the construction process);
- subgenre of the investigating part (description of the technology of the construction by the example of one or two processes, description of the construction, assembly, and specialized works with the trainee personally involved);
- subgenre of the conclusion (inferences and evaluation of the theoretical knowledge obtained and of the expertise gained).

It is necessary to provide theoretical support (the methodological characteristic of the subgenre) to each subgenre, as well as the linguistic content – verbal means as blanks of the expressions, which include clichés as connecting finishing elements. The arrangement of the speech clichés referring to a specific subgenre should mainly correspond to the structural and compositional features of this subgenre. A template of a text should serve as an example of generating a subgenre.

We observe certain interest for the structure of the genre of a *report* in teachers of foreign languages [13] and translators/interpreters [6]. Therefore, an idea seems to be reasonable to develop internationally oriented report models, which would be standardized in the linguistic and non-linguistic aspects to such a degree as to make the efforts spent on making the reports acceptable in terms of cultural differentiation and, naturally, in terms of the goals and methods of learning, to be relatively minimal.

#### IV. CONCLUSION

1. In accordance with the state educational standard, the competence-based model of a bachelor graduate in construction engineering includes general professional, professional and general cultural competences.

2. These competences are formed on the basis of a genre approach of the students expressed in advance mastery of the learning and scientific genres.

3. A genre competence formed by teachers of the Russian language allows the undergraduates to solve problems in the scientific, learning and communicative-professional spheres.

4. The genre of a *report* with all its varieties is a genre which is relevant for all the stages of tertiary education relating to construction engineering. To ensure advance mastery of the variants of this genre, it is reasonable to offer the students a typological model of the integrated genre of a *report*, accompanied by linguistic means, comments on the content and a text template.

5. As our experience demonstrates, formation of a genre competence in students of construction engineering on the basis of integrated typological models of the genres relevant to be mastered by college students and graduates allows them to master the genres of scientific and professional speech successfully and efficiently, using their own resources.

#### References

- [1] K.F. Sedov, "The genre and communicative competence", in "Good Speech", Saratov, Saratov University Press, pp. 107–117, 2001.
- [2] N.I. Kolesnikova, "A linguo-didactic concept of forming a genre competence of students in a system of continuous linguistic education", Dissertation, Orel, 2009.
- [3] O.V. Felde, "Professional sublanguages and terms of the Russian language as objects of scientific study", TSPU Bulletin, vol. 4 (157), pp.178-184, 2015.
- [4] A.V. Abrosimova, N.I. Kolesnikova, "The speech genre of a report and its varieties (the linguo-didactic aspect)", Mir Nauki, Kul'tury, Obrazovaniya, vol. 2 (69), pp. 225-229, 2018.
- [5] M.V. Bykova, "A report on company activity as a type of a text in economics", Bulletin of St. Petersburg University, vol. 9, issue 1, part 2, pp. 257-262, 2007.
- [6] T.V. Matveeva, "A learning dictionary of Russian and the culture of speech, stylistics, rhetoric", Moscow, FLINTA publishing, Nauka, 2003, pp. 210, 399.
- [7] "The culture of Russian speech": an encyclopedic reference dictionary / Eds: L.Yu. Ivanova, A.P. Skovorodnikova, E.N. Shiryayeva et al., Moscow, FLINTA publishing, Nauka, 2003, p. 210.
- [8] M.P. Kotyurova, "Stereotypes in speech", An encyclopedic dictionary of stylistics, Moscow, FLINTA publishing, Nauka, pp. 397-401, 2003.
- [9] A.G. Baranov, "Cognitive mechanisms of text activities", Bulletin of the Pyatigorsk Linguistic University, vol. 2, pp. 37-39, 1999.
- [10] E.A. Bazhenova, M.P. Kotyurova, "Genres of the scientific literature", An encyclopedic dictionary of stylistics, pp. 57-67, 2003.
- [11] N.M. Razinkina, "Stylistics of the English scientific texts", Moscow, Editorial URSS, 2005, (216 pp.)
- [12] E.I. Passov. "Methodology as the science of the future. A brief version of the new concept", St. Petersburg, Zlatoust, 2015, pp. 126-127.
- [13] N.L. Nikulshina, T.V. Mordovina, "Teaching foreign written speech in the context of science: writing an introduction not a report on an experimental study", CSPU Bulletin, vol. 2, pp. 135-143, 2009.