

# Teaching Academic Writing in Foreign Language with Information and Communication Technologies

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**Abstract**—The article is devoted to the competence developing of the students' academic writing in a foreign language with ICT (information and communication technologies) at university. The authors analyze the works on the problem of teaching the academic writing in the higher educational institutions; investigate the traditional and innovative ways, methods and means of the competence developing of the academic writing in a foreign language. The structural components of the competence: linguistic, pragmatic, sociolinguistic, sociocultural, discursive and strategic are characterized in this work. One of the innovative ways to improve the academic writing is using ICT and a variety of learning tools in the educational process. The obtained data emphasize the importance of ICT in providing professionally oriented written interaction of the students. The authors have developed and scientifically substantiated the methodological system for the competence developing of the students' academic writing in a foreign language with ICT help. They offer the examples of technical and non-technical means of education. Established diagnostic tools have proved the effectiveness of the developed methodological system.

**Keywords**—academic writing; ICT in education; a foreign language component

## INTRODUCTION

Social, economic and political changes taking place in the society now make qualitatively new requirements for the level of training specialists in higher professional education. According to the Concept of Long-Term Social and Economic Development for the Russian Federation until 2020, the content and technology of higher education should be oriented towards the definition and developing of a set of special knowledge, skills and abilities. The practical application of these knowledge, skills and abilities could provide the students with the successful implementation of their professional functions [1, 2].

The process of expanding and updating knowledge always involves seeking new information and a professional communication with the purpose of sharing experiences.

Therefore, the new generation educational technologies, for the most part, are focused on the development of the communication skills. It also implies teamwork and usage of information technology tools. In this regard, there is an urgent need to study a foreign language in high schools as a means of obtaining and processing information, a means of increasing one's own qualification. It is obvious that free professional communication in a foreign language promotes the students' academic mobility, but it is impossible without the restructuring of the system of higher education. Such reorganizing in Russia consists in eliminating the present contradiction between the world standard requirements for the students and their real language training in the higher educational institutions.

The reasons of this contradiction are:

- the absence of the national educational standard on the foreign languages dictated by the principles and norms of the Bologna Declaration;
- discrepancy between the content of teaching materials and educational technologies to the needs of the future professional activity of the graduate students;
- the lack of flexibility and the varied basis (modularity) in the educational system.

One of the problematic and insufficiently studied aspects of teaching a professionally oriented foreign language in Russia is the academic writing, which is an important part of business and professional communication. The academic writing promotes an adequate intercultural written communication (including network), develops the skills to express thoughts logically and convincingly, to analyze, compare and evaluate facts and events, i.e. to possess the skills of critical thinking and written communication [2].

The fact is that academic writing in Russia is different from scientific texts, reports and essays that has been accepted abroad. Therefore, if the students want to publish in the

international journals, they have to adapt to different style of writing. That is why we believe that academic writing in a foreign language should be an integral part of education at Universities. The introduction of ICT (information and communication technologies) helps to solve this problem in Russian higher education. By ICT, we mean not only new technical means, but also new forms and methods of teaching and a new approach to the learning process [3]. The main goal in this case is the development of the communicative culture of the students and teaching practical mastery of foreign languages [4].

Additionally, the various ICT tools have the real potential to transform the existing ways of teaching and learning by helping to organize and manage the ways of higher education institutions [5, p. 990]. With the advent of ICT, the role of a teacher changes and teaching is becoming a new profession [6; 7; 8]. Ryseva Yu.V. considers that a new character of the teacher's pedagogical activity requires the availability of a creative standing and self-determination [9]. According to Uttam Kr Pegu, there is a positive shift from being a knowledge transmitter to becoming a learning facilitator, collaborator, coach, mentor, academic navigator and colearner [10, P. 514]. Consequently, the teacher provides the students with more opportunities for their own learning and promotes their creative self-development and self-realization [11].

A lot of scientists [12-15], insist that the cybernetic space contains a huge cultural and didactic potential which is already used in teaching around the world. However, the optimal and effective use of ICT for educational purposes requires a great deal of research, the results of which will determine general and specific principles of work, the criteria for the selection of network resources, sites and materials, as well as significantly update the arsenal of tools and techniques.

#### METHODOLOGY

The integrative approach has become the backbone for the purposes of our research. It implies the integration of the disciplines' content, the fusion of organizational methods and forms in the educational process. The theoretical basis of the study was the work of O. V. Borshcheva [16] on the use of new information technologies in teaching foreign languages on the basis of the integrative approach. Having studied the literature, we came to the conclusion that writing is still given much less attention in terms of implementation of the integrative approach. It is explained by the lack of direct contact between the participants in communication.

The methodological basis was a set of general didactic and methodological principles of teaching:

- The principle of interdisciplinary integration which is implemented through the use of the content elements from one sphere of knowledge to another.
- The principle of integration within the discipline implies the interaction of aspects of teaching a foreign language writing, reading, listening and speaking skills.
- The principle of integration of classroom and distance learning reflects the peculiarities of the authors'

methodology which includes training in the classroom and remotely.

The competence of the academic writing is a multi-component structure. How do we interpret its definition? From our point of view, it is the ability and readiness of the students to carry out a foreign language written communication in the personal and professional field, applying experience, knowledge, skills and strategies when working with the foreign language texts. The competence of the academic writing includes linguistic, sociolinguistic, sociocultural, pragmatic, discursive and strategic components. The linguistic component assumes the development of students' ability to understand others and express their own thoughts in writing on the basis of knowledge of the language system as well as the rules of the units functioning in the speech. The pragmatic component is aimed at developing the ability of the students to construct the utterance in order to solve the communicative task. The sociolinguistic component aims to develop the ability to choose the necessary linguistic form and mode of expression, depending on the situation, communicative goals, the speaker's intention and social status. The sociocultural component implies the development of the students' ability to use knowledge about the national and cultural features of the native speakers' speech behavior. Discursive component assumes the ability to create written works for various kinds and purposes. Strategic component involves the willingness of the student to use the repertoire of techniques working with a foreign text.

For the development of each of these components, we have proposed a method of competence development of the academic writing with the help of the electronic didactic means. Under the electronic didactic means we understand the technical ways of teaching (auditive, visual, audiovisual, multimedia), focused on the mastering of the learning content, specifically selected to achieve the academic objectives.

On the basis of the long-term practice of teaching English in Kazan Federal University, the authors made an attempt to create their own methods of teaching students the academic writing in a foreign language using ICT. The author's methodology is a set of means and exercises which is implemented with the use of Internet services and Internet resources and focused on the content of the professionally oriented training, especially selected to develop the students' academic writing in a foreign language.

#### THE USE OF ICT IN DEVELOPING THE COMPETENCE OF THE ACADEMIC WRITING IN A FOREIGN LANGUAGE

The quality of the generated written text in a foreign language is associated with the level of certain skills and abilities development. That is why we divided our written exercises and assignments into two groups:

- 1) aimed at developing skills (spelling);
- 2) aimed at developing written language skills.

Among the interactive means, the following should be noted:

- New-generation electronic educational resources (EER) “Teaching Academic Writing”, “Business English”, “English for Technical Students” created by the authors of the article on the electronic platform of Kazan Federal University. EER include exercises aimed at the development of written skills, motivation, goal-setting and planning foreign language writing activities; linguistic-methodical and specific practical tasks in the framework of the project activity and writing portfolio; professionally directed tasks (cases); tasks for self-analysis, self-correction and self-development.
- Exchange of e-mails (letters) with the teacher and other students, using e - mail, personal websites, forums or virtual environment Moodle.
- Creation of wiki pages.
- Blogs and comments; creation of interactive publications.
- Creation of interactive surveys; creation of interactive tasks.

The tasks without the use of information and communication technologies should be noted as such: different types of dictation: paired, group, with omissions, etc.; collaborative creative writing projects; written brainstorming; written compilation of stories (retelling); mutual verification of written works; interaction and reviewing works; writing articles.

Writing articles requires a multistage preparation which, in turn, consists of the following stages: exploring the subject area, making the content, the structure of the article, drafting, revising, proofreading, final drafting and publishing.

The use of these forms of work in teaching the academic writing in a foreign language to the students determines the following electronic devices and resources:

1. Electronic dictionary to find the lexical meanings and expand the students' vocabulary.
2. Electronic translator for editing in the process of translation activity training.
3. Computer "templates" (business letter, CV, etc.) for writing business letters, filling in forms and so on in the process of training business and personal correspondence.
4. Computer editor (Word, etc.) to practice writing in the given format. It develops the ability to withstand the amount of words, check spelling and edit the style.
5. Graphic editor is used for making graphic material. It helps to activate the artistic creativity, cognitive and speech activity.
6. Internet search systems. They offer the information search for educational projects and promote the development of cognitive skills, broadening the general and academic horizons of the students.

7. Internet page templates. Useful for creating the projects via Internet websites. Contribute to the development of skills in the selection, organization and publication of materials on the Internet, self-determination and self-assertion of the student's personality.

8. E-mail for business and personal correspondence on the Internet. It develops communicative skills via e-mail.

9. SMS in the mobile phone. Assumes the development of informal communication skills through SMS in the process of personal correspondence.

10. Social services (BLOG, WIKI-encyclopedias, chats, etc.). The technologies presuppose informal communication in a virtual community and promote the development of communicative skills of oral speech and writing, as well as intrapersonal and intercultural interaction of the students.

#### IV. RESULTS AND DISCUSSION

The authors created a methodology for competence development of the students' academic writing in a foreign language using electronic didactic means. To check the effectiveness of the authors' methodology, the experimental work was carried out. The basis for the study was Kazan Federal University. The participants of the experimental training were the second year students of the technical faculty in the amount of 40 people and 20 of them were an experimental sample.

Analysis of the research results has showed that the receptive skills of the students are better developed in comparison with the productive skills. And it has been also noted that the written assignments in English present the greatest difficulties. At the same time, conversations with the students, as well as the results of the survey show that writing as a form of the language activities causes the least interest in comparison with other forms such as speaking, reading and listening. The students mention not only linguistic or stylistic, but also denotative difficulties. Among them are difficulties in drawing up a written statement, lack of ideas, inability to build a logical chain of arguments, make comparisons, formulate thesis and conclusion. Moreover, a lot of students note that writing often requires a lot of time. As a result, many of them are discouraged to engage in this form of the language activity.

##### A. *Experimental work*

Experimental work was carried out in 3 stages: ascertaining, forming and control. The ways of diagnosing the level of the competence of the academic writing have been clarified during the ascertaining stage. Diagnosis and evaluation of the desired competence level are complex and focused on the identification of language needs of the student (the motives affecting positively or negatively on the learning process), the level of the components development of the desired competence as well as the educational environment resources. The authors have established the following criteria: mastering the ways of constructing a written statement using a foreign language in accordance with the situation of communication; the developing of sociocultural and

sociolinguistic competencies; the enhancing linguistic competence with adequate self-esteem and motivation.

Taking into account the existing European levels of proficiency in a foreign language (Elementary, Pre-intermediate, Intermediate, Upper-intermediate and Advanced), the content of each level of the required competence is specified. The Elementary level is characterized by the possession of a graphic code of the foreign language. The Pre-intermediate level allows to create simple and coherent texts on the familiar or personal interests topics. The Intermediate level involves mastering ways to create coherent, detailed texts on topics related to personal interests. The Upper-intermediate level allows to write simple official and unofficial letters, fill out various documentation in English, write an essay on any topic, clearly expressing one's thoughts. The Advanced level allows to create clear, well-structured, detailed texts on complex topics of a personal and professional nature.

The authors carried out a primary assessment of the competence level of the academic writing in a foreign language. The data obtained were processed using a nonparametric Mann-Whitney test which did not reveal any significant differences between the values of the control group and the experimental group under any of the indicated criteria ( $p > 0.05$ ). This confirms an approximately equal level of the competence developing of the academic writing in both groups before the experiment.

At the formative stage, the experimental training program was implemented including contact and distance lessons. Development of the competence level of the academic writing in the experimental group was carried out with the help of ICT according to the authors' program. Its detailed methodology the authors outlined in the electronic educational resource "Teaching Academic Writing" on the electronic platform of Kazan Federal University.

This course is built to fit the productive nature of learning (written expression of thoughts), manifested in the mastery of the productive types of foreign language writing (academic, business, social, personal letters, abstract, summary, essay, report, article, abstracts, creative writing, portfolio, CV's, grant applications); implementation of learning based on the textual activity; consideration of the stages of creating a foreign language written text; definition and correction of the purpose, content, types of training activities on the basis of the results of diagnostics, evaluation, obtained at the previous stages of creating a foreign language written statement. A set of exercises has been proposed, taking into account the stages of creating a foreign language written statement: the generation of ideas; design ideas; editing; presentations of the completed written work; control and correction of the completed written work; self-control and self-correction.

## B. Data and Analyses

TABLE I. LEVELS OF THE COMPETENCE DEVELOPMENT OF THE STUDENT' ACADEMIC WRITING IN A FOREIGN LANGUAGE IN THE EXPERIMENTAL GROUP (%)

The competence level of the academic writing	Levels of the Communicative Competence of the Students' Academic Writing in a Foreign Language in the Experimental Group (%)		
	Ascertaining stage	Forming stage	Control stage
Elementary	23	0	0
Pre-intermediate	55	27	0
Intermediate	22	43	10
Upper-intermediate	0	30	60
Advanced	0	0	30

TABLE II. LEVELS OF THE COMPETENCE DEVELOPMENT OF THE STUDENT' ACADEMIC WRITING IN A FOREIGN LANGUAGE IN THE CONTROL GROUP (%)

The competence level of the academic writing	Levels of the Communicative Competence of the Students' Academic Writing in a Foreign Language in the Control Group (%)		
	Ascertaining stage	Forming stage	Control stage
Elementary	22	15	0
Pre-intermediate	56	50	41
Intermediate	22	30	49
Upper-intermediate	0	5	10
Advanced	0	0	0

The control stage included the identification of the competence level of the academic writing; analysis and interpretation of statistical data obtained during the research work. The purpose was to reveal the feasibility and effectiveness of the training. The students performed assignments (tests created in the format of international exams in English: IELTS, TOEFEL, CAE).

A comparative analysis of the competence level of the academic writing in the experimental and control groups was performed. The results (Table I) showed a significant increase in the number of the students in the experimental group at Advanced level (from 0 % to 30 %) and Upper-intermediate level (from 0 % to 60 %) and a decrease in the number of the students at Elementary level (from 23 % to 0 %) and Pre-intermediate level (from 55 % to 0 %). The results of the students in the control group (Table II) changed upward, but slightly: Elementary level (from 22 % to 0 %), Pre-intermediate level (from 56 % to 41 %), Intermediate level (from 22 % to 49 %), Upper-intermediate (from 0 % to 10%), Advanced (0%).

The data showed that there were statistically significant differences between the students in the experimental group (teaching academic writing with ICT) and the control group (teaching academic writing without using ICT).

## V. CONCLUSION

The results of the experimental work confirm the positive dynamics of the indicators in accordance with all the criteria: mastering the ways of constructing a written statement using a foreign language in accordance with the situation of communication; the developing of sociocultural and sociolinguistic competencies; the enhancing linguistic competence with adequate self-esteem and motivation.

Consequently, ICT allowed us to model the conditions of the communicative activity, master the lexical and grammatical skills, differentiate training, increase motivation and the volume of language acquisition. It also helps to develop and improve the culture of written communication, develop the researching and analyzing skills of various informational materials, promote the development of the students' self-esteem; form a sociocultural competence based on a culture dialogue.

Now we are developing a joint programme dedicated to the problems of academic writing and critical thinking with some abroad Universities. We plan to launch virtual workshops and laboratories organized in the collaboration with our foreign partners. Such technologies imply the creation of new information environment providing the students with the newest international educational resources [17].

So, ICT have undoubtedly led to huge changes in education. It helps to provide sufficiently resourced lifelong learning opportunities for both teachers and their students. However, we still have to achieve the desired level of ICT implementation in higher education in the country.

## References

- [1] The Concept of Long-Term Social and Economic Development for the Russian Federation until 2020. Retrieved from: [http://www.consultant.ru/document/cons\\_doc\\_LAW\\_82134/28c7f9e359e8af09d7244d8033c66928fa27e527/](http://www.consultant.ru/document/cons_doc_LAW_82134/28c7f9e359e8af09d7244d8033c66928fa27e527/)
- [2] A. Bilyalova, "ICT in Teaching a Foreign Language in High School", *Procedia - Social and Behavioral Sciences*, vol. 237, pp. 175-181, 2017.
- [3] P.V. Syisoev, "Directions and prospects of informatization of language education, Higher education in Russia", vol. 10, pp. 90-97, 2013.
- [4] G. Dudeney, N. Hockley, "How to teach English with Technology », Pearson Longman, 2008, 192 p.
- [5] E.V. Maksimova, M.M. Kalashnikova, Yu.V. Ryseva, "Realization of the conditions of the communicative competence formation of students in the process of studying foreign languages in a technical university," *Bulletin of Vladimir State University. Alexander Grigorievich and Nikolai Grigorievich Stoletov. Series: Pedagogical and psychological sciences*, No. 29 (48), pp. 48-54, 2017.
- [6] K. Aoki, "The Use of ICT and E-Learning in Higher Education in Japan", *International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering*, 4 (6), pp. 986-991, 2010.
- [7] B. Comu, "Digital Natives in a Knowledge Society: New Challenges for Education and for Teachers", *ICT in Teacher Education: Policy, Open Educational Resources and Partnership Proceedings of International Conference IITE-2010*, November 15-16, St. Petersburg, Russian Federation, pp. 12-18, 2010.
- [8] A. Khoroshilov, "UNESCO Teacher Development Policies and Programmes Including ICT, Digital Natives in a Knowledge Society: New Challenges for Education and for Teachers", *ICT in Teacher Education: Policy, Open Educational Resources and Partnership Proceedings of International Conference IITE-2010*, November 15-16, St. Petersburg, Russian Federation, 2010, pp.18-24.
- [9] S. Wheeler, "Information and communication technologies and the changing role of the teacher", *Journal of Educational Media*, vol. 26 (1), p. 717, 2010.
- [10] Yu.V. Ryseva, A.A. Bilyalova, A.N. Tarasova, "Problems of professional and pedagogical activities of novice teachers in education", *Modern Journal of Language Teaching Methods (MJLTM)*, Vol.7, Issue. 10, pp. 039-044, October (2017).
- [11] Uttam Kr Pegu, "Information and Communication Technology in Higher Education in India: Challenges and Opportunities", *International Journal of Information and Computation Technology*, 4 (5), pp. 513-518, 2014.
- [12] J. Ryseva, A. Bilyalova, A. Valeeva, "The functioning of the system of interschool methodical work with novice teachers", *Вісник Національної академії керівних кадрів культури і мистецтв*, No 4, pp.116-119, 2017.
- [13] R. Vrana, "ICT-supported communication of scientist and teaching staff at the faculty of humanities and social sciences in Zagreb", *New Library World*, 111(9/10), pp. 413-425, 2010.
- [14] Han Ping Fung, "Effects of Information and Communication Technology (ICT) on Social Science Research", *Africa Development and Resources Research Institute (ADRR) ADRRI JOURNAL*, Issue 1, pp. 1-8, 2013.
- [15] J. Watson, « Blended learning: The convergence of online and face-to-face education, North American Council for Online Learning, 16 p.
- [16] A.E. Rakhimova, "Advantages of the use of computer technology in teaching foreign languages", *Foreign languages at school*, 10, pp. 56-60, 2012.
- [17] O.V. Borscheva, "Methods of development of socio-cultural skills of students in the field of "Pedagogical education" on the basis of modern Internet technologies", *Dissertation ... cand. ped. sciences*, Moscow, MGGU n.a. M.A. Sholohov, 2013.
- [18] I. Robert, "Modern information technologies in education: didactic problems, and use perspectives. Moscow", *Russian Academy of Education*, 2010, p. 140.