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# ПЕДАГОГИКА
# PEDAGOGICS

**Biryukova M.V.**

## DEVELOPMENT OF COMMUNICATIVE AND TECHNOLOGICAL COMPETENCIES OF STUDENTS WITHIN PROGRAMS OF SHORT-TERM MOBILITY

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**Abstract**

The paper researches the development of competencies during students' stay in a foreign country under the programme of short-term mobility. Communicative and technological competences are studied. The data were collected on the basis of surveys in the form of questionnaires of twenty students of Ryazan State Radio Engineering University. The survey was carried out anonymously. The questions included in the questionnaire were divided into three main groups: open, closed and multiple choices. The evaluation section of communicative competences consists of four main parts: (1) student identification, (2) number of languages, motivation to learn, use and timing, (3) self-evaluation, and (4) questions and comments. Self-assessment was included to analyze their own learning process, in this case in relation to foreign languages and ICT. The technology competency assessment section consists of two main parts: (a) the relationship between language and communication in ICT, and (b) the knowledge and skills in ICT.

**Keywords:** mobility; communicative competence; technological competence; information and communication technologies; student exchange.

**Бирюкова М.В.**

## РАЗВИТИЕ КОММУНИКАТИВНЫХ И ТЕХНОЛОГИЧЕСКИХ КОМПЕТЕНЦИЙ СТУДЕНТОВ В РАМКАХ ПРОГРАММ КРАТКОСРОЧНОЙ МОБИЛЬНОСТИ

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**Аннотация**

Данная статья посвящена исследованию развития компетенций во время пребывания студентов в иностранной стране по программе краткосрочной мобильности. Исследуются коммуникативные и технологические компетенции. Данные собраны на основании опросов в виде анкет двадцати студентов Рязанского государственного радиотехнического университета. Анкетирование проводилось анонимное. Вопросы, включенные в анкету, подразделяются на три основные группы: открытые, закрытые и с множественным выбором. Раздел оценки коммуникативных компетенций состоит из четырех основных частей: (1) идентификация студента, (2) количество языков, мотивация к обучению, использование, сроки, (3) самооценка и (4) вопросы и комментарии. Самооценка была включена для анализа собственного процесса обучения, в данном случае в отношении иностранных языков и использования ИКТ. Раздел оценки технологических компетенций состоит из двух основных частей: (а) отношение между языком и коммуникацией в области ИКТ и (б) знания и умения в ИКТ.

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**Ключевые слова:** мобильность, коммуникативная компетенция, технологическая компетенция, информационные и коммуникационные технологии, студенческий обмен.

Language is a complicated human activity required to convey feelings, senses and experiences, express opinions and transmit information. Language is a key tool that allows a speaker integrating into society. As Seelye, H. N. noted "language is an encryption machine that helps us to understand meaning of the message encoded in the culture" [10]. In modern globalized world, cross-cultural and linguistic boundaries are becoming increasingly important. As I.Yu. Nechaeva points out, "at least one foreign language skills are caused by the necessity to be aware of world scientific discoveries and achievements, to be able to read contemporary papers and monographs in a foreign language" [8]. Although studying of two or more languages is not a new phenomenon, over the past 10 years European and Russian higher education institutions have made significant efforts to promote language learning and to improve the quality of foreign language teaching. One of the leading specialists in the area of intercultural competencies British scientist Michael Byram rightly noted: "In the last decade ... there has been an increasing attention to and experimentation with teaching language and culture in integrated ways" [2].

Nowadays, communication has been changed due to the emergence of new information and communication technologies (ICT). Therefore, it is necessary to acquire new knowledge and develop skills being suitable to up-to-date needs. As L.P. Kostikova mentions, "one of the most important competences of a modern person is an ability to use information and communication technologies in the professional activity, to cope with and process huge information flows, to participate in intercultural communications" [7]. At present, training should be based not only on the study of concepts and relations, but also on the promotion of methods and procedures that allow students adequately using new technological resources, i.e. to develop skills at searching, selecting, arranging and processing of information properly, working together, being independent within the learning process, interacting and actively participating in making operational decisions. The technological medium is an ideal tool for facilitating of interaction and communication during the process of language learning. It assists the creation of communicative contexts that provide flexible, open and real practice at a foreign language lesson for students of different levels, different ages, from different countries, etc. Realistic communication situations are recreated using specific interactive computer applications when speakers can practice language abilities in order to carry out a communicative exchange in the future. The communicative and functional approach focuses on learning of the language based on real communication needs and realizes the importance of the context beyond the sentence for the appropriate use of the language.

ICT provide an easy access to a large amount of textual, visual, sound and animation information being interesting for students, communication with other students from other countries, schools, etc., exchange of views and experience, consultations with experts, and also access to resources that offer self-testing and participation in international projects and teamwork. As N.E. Yesenina says, "joint work stimulates students to get acquainted with different points of view on the problem being studied, to search for additional information, to evaluate their own results, and the process of collective creativity makes it possible to increase motivation" [4]. Of course, the acquisition of communicative competencies should also include the development of technological competences.

The author in the paper emphasizes that "the mobility of students of technical universities creates a communicative-oriented information educational environment for the development of their communicative competence" [1]. Living and studying in a foreign country offers an optimal environment for the development of communicative competence which includes improvement of all common competences, interaction in a real context that improves the spontaneity, flexibility and fluency of the communica-

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tive exchange, use of linguistic knowledge and communication skills acquired in the classroom, primarily speaking, listening, writing and reading, expansion of the vocabulary, acquisition of pluricultural values, widespread usage of a foreign language through ICT. E.V. Voevoda and V.B. Kirillov emphasize that effectiveness of professional language training of students is determined by interrelated conditions: formation of professionally significant competences, peculiarities of linguistic professionalization, preparation for intercultural communication, use of innovative pedagogical technologies in conjunction with selection of teaching materials and training of pedagogical staff [6].

Development of technological competences includes an increase of awareness of the Internet's network as a source of information and communication, acquisition of basic and advanced knowledge of the Internet, increase of the Internet and web navigation usage, and great expansion of communication tools such as mail, personal blogs, social networks and messages using languages other than the native language.

The information was collected on the basis of questionnaires. The participants were 20 students of Ryazan State Radio Engineering University. The aim of the programs of the short-term academic mobility is a study of three or four of five compulsory subjects at a European university. They studied English culture, grammar, literature and practiced an interpretation. N. Dima insists that "if a person succeeds in moving away from the culture that gave birth to him, he will be very surprised to know how different and richer the same world is. To stimulate such a view of the world is the goal of learning at the present stage" [2].

The questionnaire is one of the most representative methods of the quantitative approach. The questionnaires were prepared so that participants could easily understand them and quickly fill them in. The questionnaires were translated into HTML and PHP4 for storing of incoming data and sending via e-mail. The participants were informed about anonymity of the questionnaire. Finally, the participants were provided with the results of the studies in order to include a bidirectional exchange of information. Self-evaluation helped students to analyze their own learning process. In addition, they assessed the progress and development of competencies over time.

The questions included in the questionnaire are divided into three main groups: open, closed and multiple choices. Open questions allowed participants to respond in their own language not limiting their answers (qualitative research). The questions contain two main areas of the research: communicative competence and technological competencies. As for the communicative competence, it is worth noting four main parts of the questionnaire: (1) student (identification), (2) language (number of languages, motivation for learning, use and terms); (3) self-evaluation t and (4) questions and comments. Self-evaluation is the most important component in the study. Self-evaluation is classified into five different parts corresponding to the basic abilities that participants acquire within the process of foreign language learning: reading, listening, speaking, writing and verbal interaction. Each question corresponds to one level of language proficiency (A1, A2, B1, B2, C1, C2). In addition, there are "before" and "now" units for everyone, so you can get information about the participants' impression of their progress.

The questionnaire of technological competences consists of two main sections: (a) relationship between the language and communication in the field of ICT and (b) knowledge and skills in ICT. In the first section, we analyze the following:

• Usage of the Internet: usage of e-mail and search engines, online encyclopedias and dictionaries; downloading of files; creation of personal blogs; video playback; online games; participation in web forums; creation of web pages; usage of of social networks and reading of news.

• Messaging, Skype calls and participation in online chats.

• Language of communication through the Internet: Spanish, German, Russian or English.

Participants should indicate a value on a scale from 1 "not used" to 5 "often used" for periods "before", "during" and "now or after".

The second section is self-evaluation of technological competencies, i.e. assessment of

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knowledge and skills regarding ICT tools and usage of the Internet by students. Knowledge and abilities are classified as follows:

• Information systems (hardware, software and the Internet): to understand functions of main computer elements; to apply shortcuts, such as a shortcut "Ctrl" + "x" to cut; to distinguish elements of hardware and software; to know how to apply alternative unlock procedures, to reboot and shutdown the computer, and to know how to install the program.

• Operating systems: to recognize the main desktop elements; to distinguish programs, documents and folders, to understand if there is no antivirus software; to know how to uninstall the program.

• Usage of basic programs: to learn how to create, write and store a document; to recognize various basic capabilities of text editors; to be able to insert images, symbols and other graphic elements; to use tools of the graphic editor; to create, save and print spreadsheets; to recognize various basic parameters of a spreadsheet.

• Usage of the Internet: to know how to enter a URL into the toolbar; to recognize and use the main functions of the browser; to be able to update web pages, use links, print from a web page; to implement advanced search and use filters with multiple keywords; to be able to send and receive emails and attach documents; to use e-mail programs and messaging programs.
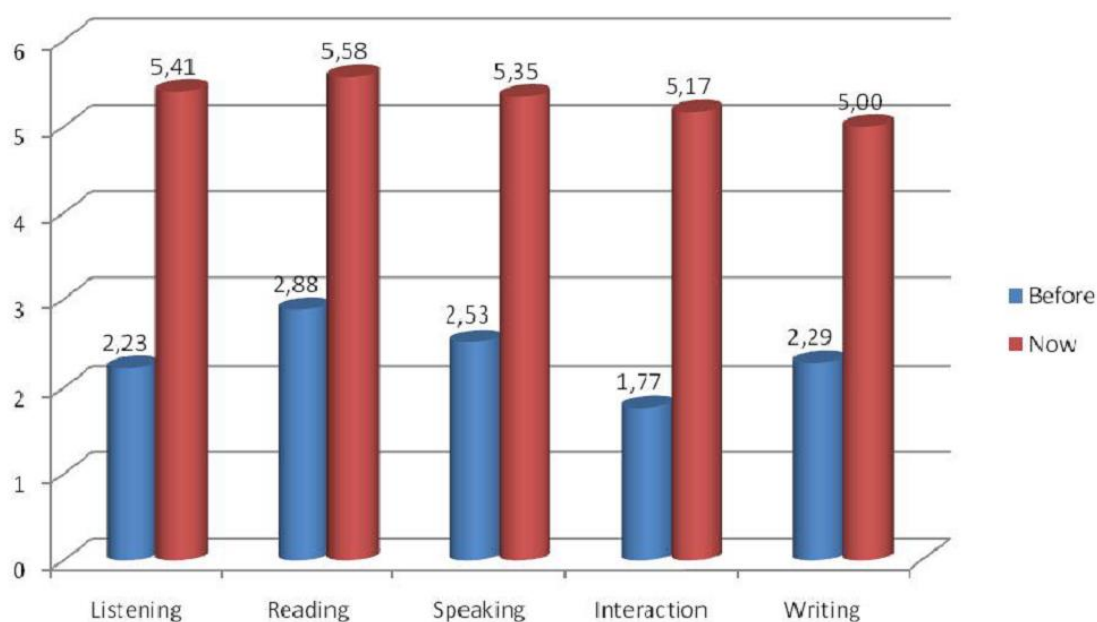


Fig.1. Average level of communicative competences
Рис. 1. Средний уровень коммуникативных компетенций

Fig. 1 shows that the level of communicative competencies increased after the mobility programs. In general, "reading" is a competence that has reached the highest level, but it should be noted that "reading" is closely related to the competence related to oral activity, such as "listening", "talking" and "interacting".

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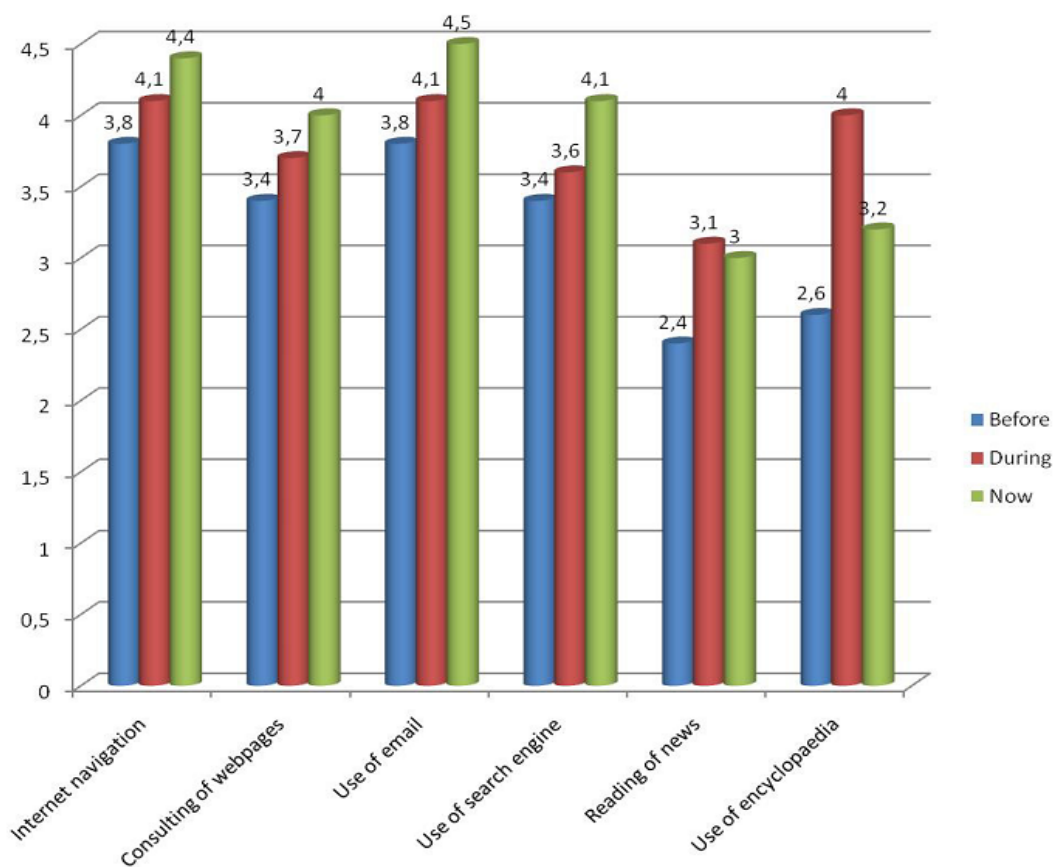
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Fig.2. Frequency of Internet activity related to communication and search of information
Рис. 2. Частота деятельности в Интернете, связанной с общением и поиском информации

In general, the analysis of results related to technological competences (Fig. 2) does not confirm progression or improvement of competencies, because improvements related to competencies in the field of information, operating systems, basic programs and the use of the Internet are practically insignificant.

Nevertheless, there are some other aspects that have significantly improved during the "during" and "now" periods. It is worth noting a significant improvement of navigation in the Internet. It shows that the participants have acquired a habit to use the Internet as a means of searching for information and communication. The use of messaging mainly for communicating with family, other students or friends is more evident during exchange programs.

As it was noted before, the results have demonstrated an improvement in all communicative competencies. In addition, some students confirmed: "My level of English proficiency, in general, became much better during my stay in the UK. Before, I could not speak, understand and write in English, so my knowledge has improved in all directions". The results of the studies confirm that oral interaction has increased. This means that participants received more flexibility and fluency in communication. This helps to improve speaking and listening skills.

With regard to the use of linguistic knowledge and communication skills acquired in the classroom, especially with respect to oral speech, listening and reading, participants confirmed in open questions that during their stay in a foreign country they used "passive" knowledge acquired in the classroom I: "During the short-term mobility program, I began to speak and listen in English. I used to have English lessons at university, I learned English, only reading and writing". This is due to expansion of the vocabulary: "I have acquired more knowledge relating to the spoken language. Earlier, my level of language was good, but when I wanted to express

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my opinion, I was not sure that I could easily and widely do it".

Contact with representatives of different languages, life in a foreign country and usage of different languages contribute to the construction of a method of thinking based on plurilingualism. It means learning to think and communicate in different language systems and acquire other multicultural values. G. Pike, D. Selby note that the linguistic and cultural competence is defined as one of the education sections of "new formation" along with media, civil literacy, human rights, gender equality and skills in environmental matters [9]. In this context the statement by A. Fantini is interesting: "Really, learning the language, getting acquainted with the realities and lives of its carriers, you are imbued with respect, seek for personal communication which, in turn, makes you tolerant, curious and allows you understanding the need for further improvement of language skills" [5]. Therefore, we can confirm the hypothesis that participation in student exchange programs develops communicative competencies.

When we consider the results of the introduction of technological competencies, it is important to refute the hypothesis that staying in a foreign country is the optimal environment for acquiring basic and advanced technological knowledge. The skills to use the Internet are almost the same in all periods. However, analyzing different competences (using information, operating systems, basic programs and the Internet), we come to the conclusion that students used the Internet more than other technological resources. This suggests that participants recognize the importance of the Internet as a means of information obtaining and communication. This is also confirmed by the increase in activities related to information search and communication (use of messages, e-mail and search engines).

With regard to the use of languages in the Internet, it should be noted that in general there is a marked improvement in the use of other languages for information search and as a means of communication. Therefore, we can confirm that staying in a foreign country promotes the use of other languages during usage of the Internet. It can be assumed that technological competencies are developed through the use of the Internet.

Thus, student mobility contributes to European socialization, and there is no doubt that language learning in the country plays an important role in this process. Student mobility increases not only the language skills of students, but also their social attitude to other cultures due to cross-cultural communication and exchange in the host country and with the help of ICT. Through the learning process, students are aware of linguistic and cultural diversity and, therefore, they develop relationships and acquire values such as respect and understanding of other languages and cultures. In modern socio-economic conditions, representatives of the Russian Ministry of Education and Science intend to intensify their efforts to promote mobility among students, employers and young entrepreneurs.

*Информация о конфликте интересов:* автор не имеет конфликта интересов для декларации.

*Conflicts of Interest:* the author has no conflict of interests to declare.

### Referencies

1. Biryukova M.V. Academic mobility is a key factor in the development of the competencies of future engineers // Scientific-methodological and social aspects of psychology and pedagogy: a collection of articles of the International Scientific and Practical Conference (October 10, 2016, Nizhny Novgorod). 2 part. Ufa: AETERNA, 2016. Pp. 21-23. Russian.

2. Byram M. Assesing intercultural competence in language teaching // Sprogforum. 2000. Vol. 6. Pp. 8-13 (Updated April, 29, 2002). Russian.

3. Dima N. Cross-cultural communication. The Institute for the Study of Man. N.Y., 1996. Pp. 8.

4. Esenina N.E. Transformation of the forms of foreign language learning in a technical university using the means of informatization of education // In the collection: Modern technologies in science and education – STNO-2016 collection of papers of the international scientific-technical and scientific-methodical conference: in 4 volumes. Ryazan State Radio Engineering University; Edited by of O.V. Milovzorov. 2016. Pp. 164-167. Russian.

5. Fantini A. Exploring intercultural competence: a construct proposal. – Brattleboro, VT, USA, 1995. Pp. 170.

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6. Kirillov V.B., Voevoda E.V. Professional language training for international students // Higher education in Russia. 2016. № 4. Pp. 116-122. Russian.

7. Kostikova L.P. The use of electronic resources for the formation of intercultural competence of future international workers // In the collection: Conceptual foundations and experience of professional and personal formation and development of a specialist. Materials of the scientific and practical conference with international participation. Responsible editor: N.V. Martishina. 2015. Pp. 69-73. Russian.

8. Nechaeva I.Yu. Modern trends in teaching of foreign language in Russian universities // In the collection: Problems of teaching of professionally-oriented foreign language at the university. Materials of the International Scientific and Practical Conference. 2014. Pp. 31-33. Russian.

9. Pike G. Reconnecting: From National to Global Curriculum, Hodder & Stoughton / G. Pike, D. Selby. N.Y. 1993. Pp. 14

10. Seelye H.N. Teaching culture: strategies for intercultural communication. — Lincolnwood, IL: National Textbook Co, 1994.

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