



УДК 378.1

DEVELOPING STUDENTS' ACADEMIC RESEARCH SKILLS AT THE
ENGLISH LANGUAGE DEPARTMENT

Belozeroва N.V.

Candidate of Pedagogy, Associate Professor

Saint-Petersburg University of the State Fire Service of EMERCOM of Russia

Saint Petersburg

[*nv.belozeroва@gmail.com*](mailto:nv.belozeroва@gmail.com)

Shcherbakova I.O.

Candidate of Pedagogy, Associate Professor

Admiral Makarov State University of Maritime and Inland Shipping

Saint Petersburg

[*ShcherbakovaIO@gumrf.ru*](mailto:ShcherbakovaIO@gumrf.ru)

Annotation. *The article covers the issues of academic culture development at technical university. The authors review different approaches to the definition of academic culture. They find out different semantic elements of the concept «academic culture» and analyze them with the view to establish the fundamental features of the research culture in the modern world. The article is also focused on the description of the basic research skills which can be improved through the language practice in English. The authors try to show how students' research work in English can form the competences which are necessary to be integrated into academic community. The identification of the major conceptual elements of the academic culture along with the analysis of the existing university models has resulted in the detailed description of the research skills which can be improved through language practice. The authors have also worked out a number of research activities which consolidate academic exploration and communication. The article describes the experimental part of the research conducted by the authors. It consists in the performance of a research project in English and their subsequent analysis and assessment. This empirical work has*

permitted to identify students' competences which can be successfully formed and the ones which can be more problematic. The article highlights the elements of the students' academic culture which require professional guidance for successful integration in the academic community. The overall results of the research show that developing academic skills in reading, writing, listening for doing the research projects in English can help students to improve their academic competence.

Keywords: *research skills, research projects, academic culture, academic skills, academic community.*

РАЗВИТИЕ ИССЛЕДОВАТЕЛЬСКИХ УМЕНИЙ СТУДЕНТОВ
В ПРОЦЕССЕ ОБУЧЕНИЯ АНГЛИЙСКОМУ ЯЗЫКУ В ВУЗЕ

Белозёрова Н.В.

кандидат педагогических наук, доцент

*ФГБОУ ВО «Санкт-петербургский университет государственной
противопожарной службы министерства Российской Федерации по делам
гражданской обороны, чрезвычайным ситуациям и ликвидации последствий
стихийных бедствий*

имени Героя Российской Федерации генерала армии Е.Н. Зиничева»

г. С.-Петербург

[*nv.belozeroва@gmail.com*](mailto:nv.belozeroва@gmail.com)

Щербакова И.О.

кандидат педагогических наук, доцент

ФГБОУ ВО «ГУМРФ имени адмирала С.О. Макарова»

г. С.-Петербург

[*ShcherbakovaIO@gumrf.ru*](mailto:ShcherbakovaIO@gumrf.ru)

Аннотация. *В статье рассматривается вопрос развития академической культуры обучающихся в техническом вузе. Цель исследования заключается в установлении основных компонентов академической культуры в современном образовательном пространстве через анализ данного понятия с точки зрения существующих подходов (технологического, институционального, когнитивного, коммуникативного). Семантический анализ понятия*

«академическая культура» позволяет установить такие компоненты академической культуры, как критическое мышление, исследовательский потенциал, сохранение и преумножение интеллектуальных ценностей, сотрудничество, этические нормы. В статье предлагается совокупность видов учебной деятельности, направленных на формирование и развитие компонентов академической культуры в рамках освоения комплексных коммуникативных умений.

Ключевые слова: *исследовательские навыки, исследовательские проекты, академическая культура, академические навыки, академическое сообщество.*

Introduction

Nowadays, the point of developing academic research skills has been popular in different educational contexts. The researchers focus on many aspects of this process concerning its structure, factors which influence it, methods and tools to improve and boost its every single element. Xi Shen and Xianghong Tian consider different elements of the academic culture such as academic outlooks, academic spirits, academic ethics and academic environments which function and develop within the framework of the campus conditions (Xi, Xianghong, 2012, p.61). Having analyzed the social environment where the modern university functions and many influences which precondition its successful development, David D. Dill develops the concept «organizational culture» which is important for the effective academic research and its productivity (Dill, 2012). The research conducted by L. Wang is also aimed at discovering the instruments which enable university practitioners to ensure the quality of the academic research, evaluate the outcomes of the scientific work and organize it effectively (Wang, 2014). Reflecting on the university's external relationships G. Neave perceives the major shifts in Western Europe's higher education systems and the need for the increased university's autonomy (Neave, 2013). W. G. Tierney and M. Landford examine not only external factors determining the effectiveness of the research work, but also the university's internal values comprising academic freedom, critical thinking, and autonomy (Tierney, Landford, 2018).

On the other hand, the concept of academic culture which involves academic literacy, academic competence is being discussed from different points of view. For example, Jeremy K. M. Sanders stresses the need for a more inclusive and diverse research infrastructure based on respect and tolerance (Sanders, 2020). Célestine L.D. Mangué and Jean Gonondo discuss the concept of «talent cultivation» within the academic culture which is based on the increasing internationalization, the innovation of scholars and talent competition. According to the authors this strategy permits to avoid academic corruption, falsification and plagiarism (Célestine, Gonondo, 2021). Ken Kempner and William G. Tierney consider the knowledge and research work to be the core elements of the academic culture which is shaped through the interaction of national and international influences (Kempner, Tierney, 2018). Specific skills encompassed in the core of academic culture are also analyzed by Marco Romito who stresses the importance of digital skills (Romito, 2020). Crawford Spence argues that academic culture is based on noble, socially-minded values and therefore universities should privilege a collegial judgement over a managerialist policy of measurement (Spence, 2019).

The problem that pushed us into this research is that a big number of students in Russian technical universities do not possess the necessary skills to become successful members of academic community. Very few of them are involved in a number of research projects mostly because they are not skillful enough for this kind of work.

The purpose of this research is to examine the concept of academic culture and to show the ways how the students doing academic research projects in English, developing the skills which are crucial for every member of university academic community are becoming «academically cultured» in the particular case of **Admiral Makarov State University of Maritime and Inland Shipping** (Saint Petersburg, Russia) (Naletova, Prokhorov, 2013).

The concept of academic culture incorporates a number of distinctive features: the correlation between research and expert practices, the relationship between students' and teaching communities. In an information society, economic growth is determined by intellectual and technological factors. For example, S. Barbana, X.

Dumay and V. Dupriez examine the new methods of testing and learning outcomes evaluation which have been recently implemented in Belgium (Barbana, Dumay, Dupriez, 2020). Dalit Contini and Guido Salza propose a risks estimation model in order to increase the inclusiveness and effectiveness of Italian higher education system (Contini, Salza, 2020). Lesley Gourlay and Jacqueline Stevenson observe that if an attempt is made to reduce a complex, unstable, context-dependent and multifaceted construct such as «academic excellence» to a purely practical set of metrics, there is a tendency to ignore disciplinarity, sociopolitical context and students' needs (Gourlay, Stevenson, 2017). This fact reveals the important role the university plays nowadays in the formation, accumulation and transfer of knowledge. It also determines through research practice the trajectory of personal development which results in the increased quality of labor resources.

Historically, the concept of «culture» is associated with the process of education through the cultivation and transformation of human mind. As it was noted by Gudkov D.B., culture exists in the form of a cultural space, which comprises both existing and potentially possible ideas shared by all members of a certain ethnic community (Gudkov, 2000, p. 41-42). Sepir E. considers culture as a socially inherited set of practical skills and ideas that characterize the way of thinking (Sepir, 1993, p. 25). The fact that a culture belongs to a certain community, its ability to preserve and transmit the experience of intellectual exploration of reality are emphasized in the definition of the concept of «culture», which was put forward by Vereshchagin E.M. and Kostomarov V.G.: «Culture is a social phenomenon, which is embodied in a set of material and spiritual achievements of a certain community » (Vereshchagin, Kostomarov, 2005, p. 33).

The analysis of those definitions allows us to conceive culture as a sphere of intellectual exploration of the world. Culture functions as a hierarchically organized semiotic system that ensures all information processes within society, and performs the following functions:

- communicative (transferring knowledge within society);

- cognitive (ensuring the process of cognizing reality, storing knowledge, transforming it);
- cumulative (storing knowledge, values, beliefs in the form of signs).

The semantic components of the concept of «academic culture» refer to the sphere of abstract, theoretical exploration of the world in the highest forms of cognition. Among the definitions of the concept «academic» in the explanatory dictionary of the Russian language, you can find the following: educational (associated with a higher educational institution); theoretical; honorary; excellent, exemplary [Gerd, 2017, p.75). Consequently, the concept of «academic culture» refers to a greater extent to the field of scientific concepts and is associated with the activities of higher educational institutions. Mamardashvili M.K. argues that science can be considered as part of a culture since it reveals a person's ability to cognize the universe through a system of signs which are used to code, reproduce and transmit certain skills, experience, knowledge (Mamardashvili, 1992, p.107).

The semantic analysis enables to identify the following aspects of the concept «academic culture»:

1. Technological aspect: Academic culture can be defined as a system of teaching methods and principles, based on the pedagogically adapted experience of scientific exploration (Erokhina, 2014, p.65). The technological aspect of academic culture, associated with rational ways of organizing and carrying out scientific research, correlates with the concept of «academic literacy», which is based on the ability to use various semiotic systems, languages, and codes, both at the perceptual and productive levels (Korotkina, 2009). The core of academic literacy is made up of universal methods of cognitive and research activities that ensure the effective transfer of knowledge. This aspect of academic culture is embodied in the ability to plan, organize and carry out scientific research. It is also expressed in the methodological competence that determines the quality of scientific works of various types and empowers the development of interdisciplinary research.

2. Competency-based aspect: Academic culture implies employing rational methods in processing scientific data, «a high level of mastery in extracting

information and its subsequent transformation into knowledge» (Gordienko, 2006, p.10).

3. Institutional aspect: Academic culture is viewed as a field of university education that concentrates the most valuable, historically established, scientifically grounded practices of intellectual cognition. In the institutional framework, researchers distinguish several models:

- The Anglo-Saxon model (Great Britain, the USA, Canada, Australia, New Zealand) combines the characteristics of the democratic traditions of the early medieval universities and the pragmatism of the German higher school. This model features the powerful character of an educational, research and scientific-production corporation, which enables an individual creative freedom to be embodied in profitable research projects.

- The European model, dating back to the medieval concept of the university as a special educational institution with its own specific language, uniform, traditions, developed in the nineteenth century. Humboldt W. formulated the idea of a university as a unique educational institution that embodies the unity of teaching and research in various forms of academic freedom. This model connects the concept of «academic culture» with a specific educational institution and implies the existence of many academic cultures.

- The Asian model, encompassing the basic features of the Anglo-Saxon model, is focused on increasing competitiveness in the world market of educational services. The main features of this model are the internationalization of curricula, academic mobility of teachers and students, possibility of distance learning. Within the framework of this model, different forms of transnational education are actively developing: university studies abroad, double-degree programs, higher educational institutions cofounded by representatives of European and Asian countries (Gurkov, 2007).

4. Cognitive aspect: Academic culture presupposes a high level of proficiency in the intellectual operations of analysis, synthesis, generalization, and classification. This concept implies the knowledge about the fundamental research methods. The

cognitive aspect of academic culture reveals itself in the knowledge of the concepts of a professional worldview, in the ability to formulate the topic of a scientific research, substantiate its relevance, scientific novelty, theoretical and practical significance, and assess the scientific results.

5. Communicative aspect: Academic culture is a conceptual system that ensures all contacts within the scientific community. The communicative aspect of the academic culture externalizes itself through the means of academic communication, which can take various forms: the publication of scientific results, communicating in an international team, information exchange via the Internet. The communicative aspect of academic culture encompasses two dimensions: 1) paradigmatic (knowledge of the terminology of the studied subject area) and syntagmatic (knowledge of the syntax of a simple, complex sentence, super phrasal unity, text). In addition, the academic culture based on a single semiotic code ensures the unity within the scientific community in synchronicity (in the process of transferring information between members of the community) and in diachrony (in the process of transferring knowledge between generations).

6. Sociocultural aspect: Academic culture can also be viewed as a professional, refined subculture of the scientific community (Komarova, 2019, p.141). At the same time, it is also a social environment in which professional practices, the interaction between the main stakeholders are carried out – «... a group of people with a legitimate interest in the activities of the organization» (Zhuravleva, 2015, p.82-84). The main stakeholders within the scope of the higher education are students and their families, governmental agencies, academic and administrative staff, the academic community, the spheres of production and entrepreneurship.

7. Commercial aspect: An institution of higher education can carry out commercial projects to make profit in cooperation with business partners (Prokhorov, 2015, p.83).

8. Ethical aspect: It determines the socialization of the student through the acquisition of the norms, principles, values, traditions of the academic community whose members are guided by the ethical ideal of intellectual activity. This aspect

determines the vector of personal development in the academic field, contributes to the coordination of the personal aspirations and the interests of the research team. The ethical dimension of academic culture is associated with the principles of universalism, collectivism, disinterestedness and organized skepticism. These principles, established in the academic community through a system of prescriptions, instructions, prohibitions, exemplary practices, were formulated by Merton R. and supplemented by Barber B., who added the principles of rationalism and emotional neutrality (Merton, 2010).

Thus, it is possible to consider academic culture as a multicomponent concept that reflects the specific mechanisms of the modern university as a social institution in an information society. The concept «academic culture» reveals the unity of tradition and innovation in the process of transferring knowledge. It is based on modern information and communication technologies. It takes into account the interests of all participants in the research process (students, the scientific community, government agencies and production sector).

Having analyzed all the aspects of academic culture we are able to define the aspects which can be focused on in the course of EFL and to fix the skills that can be developed to make students more successful in academic activities to become fully integrated into modern academic society.

Aspect of academic culture	Skills involved	Research activities performed
Technological	Critical thinking Academic reading Academic writing Academic speaking Academic listening	plan, organize and carry out scientific research
Competency-based	Critical thinking Academic reading Academic writing	processing scientific data
Cognitive	Critical thinking Academic reading Academic writing	analysis, synthesis, generalization, and classification

Communicative	Critical thinking Academic writing Academic speaking Academic listening	academic communication: publication of scientific results, communicating in an international team, information exchange via the Internet, participating in scientific conferences and meetings
Sociocultural	Critical thinking Academic reading Academic writing Academic speaking Academic listening	interaction within the professional organization university academic community, governmental agencies, academic and administrative staff, the spheres of production and entrepreneurship.
Ethical aspect	Critical thinking Academic reading Academic writing Academic speaking Academic listening	acquisition of the norms, principles, values, traditions of the academic community

Table 1

Critical thinking is the skill that is crucial for academic work. Critical thinking means not only the ability to choose, analyze, compare, evaluate information, draw conclusions on the basis of the seen, read, listened, but also «mind flexibility», curiosity, desire to participate in discussions, ask questions, experiment with new ideas. Students must be able to realize their own liability in the learning process, belonging to the academic community, should have the ability to protect their positions, recognize the positions of other participants in the academic environment.

Academic reading skills allow students to read texts of various types and volume using various reading strategies: Previewing, Predicting, Skimming, Scanning, Guessing from Context, Paraphrasing, Summarizing, etc. Teachers should pay attention to the development of critical, analytical reading - i.e. the ability to compare, analyze, allocate the main and secondary, draw conclusions, etc. Ch. Blickem and N. Shackelford observe that the ability to select sources for reading, combining critical thinking and information literacy should be developed (Blickem,

Shackleford, 2007). Reading in the chain of academic skills is inextricably linked with Academic Writing (Academic Literacy..., 2002).

The combination of reading and writing in the chain of academic skills is extremely important. Students, reading and analyzing the research papers of various authors, learn to see the problematic issues, determine and compare the positions of the author, distinguish between the arguments and conclusions, and doing this, acquire and develop the skills of the academic writing. Academic Writing involves analyzing and construction of arguments, structuring the text (at micro and macro levels), referencing, quoting, paraphrasing, summarizing.

Methods

The general theory and methodology of education, the results of fundamental and applied research in the field of education have formed the theoretical base of the study. The analysis of publications and the review of the contemporary research in the field of education allowed us to figure out the elements to be focused on in the course of EFL and to fix the skills that can be developed in the course of English. We have analysed different view points on defining the concept of «academic culture», its aspects and tried to figure out the criteria to evaluate students' achievements performing research activities. Within the framework of this study the experience of the English Language Department of Navigation and Communication in **Admiral Makarov State University of Maritime and Inland Shipping** (Saint Petersburg, Russia) has been examined. The academic research projects in English which were done by the students were analyzed and academic skills of the focus group students were examined. 26 5th year students composed the focus group. We assessed the tasks performed by the students at every stage of the project. The ultimate goal was to assess their learning outcome regarding academic activities, involving academic culture elements.

Results and discussion

Having analyzed and by the examining the research work of the students we are able to present the results in the following table, ranging the elements of academic culture which occurred to be most or least successfully «activated» in the research project work. We also can focus on the main problems with performing research

activities and fix the most problematic ones.

The elements of academic culture presented in the Table 2 start with the most «activated».

Aspect of academic culture	Comments on the results of the work
Sociocultural	The most of the students were ready to work with faculty practitioners, companies' staff, academic advisers and university administration to perform the project and present the results. Some of them participated in the projects of their internship companies, others present the results of their research projects at students' scientific conference. All the skills were being practiced, but speaking was the most problematic one, due to the lack of specific terminology and speaking practice. Although public speaking (academic presentations) were prepared well and performed very successfully.
Communicative	Students actively discussed the projects with the advisers, other participants, practitioners. Some of them carried out the collaborative projects. Among the problems – academic speaking (asking and answering questions, discussing spontaneously).
Competency-based	The students were able to find and work with the necessary documents. They were able to choose the information they needed to perform the project. They sometimes faced with the difficulties in specific terminology, but in general, reading professionally oriented texts seemed not to be problematic until the texts were short enough.
Technological	The most of the students were not good at planning and organizing the work. Many of them were not able to read effectively, spent too much time on preliminary reading. To plan the stages and the parts of the project was hard without a supervisor. The students

	needed the support to choose the right methodology. As for the academic skills which they did not demonstrate: did not use all the types of reading, so did not read effectively, felt lack of critical reading skills, it was hard for them to process big amount of information. Because of lack of practice in academic writing students failed in structuring the arguments, were not logical enough in writing the parts of the research.
Cognitive	There were big problems with analysis, synthesis, generalization and classification. It was hard for the students to deal with a big amount of information in English, because the lack of practice in academic reading, writing, critical thinking. In academic speaking and writing it was hard for the students to make the focus, classify the arguments, make conclusions.
Ethical aspect	The students very often did not follow the norms mostly connected with plagiarism, did not use the strategies to avoid it. In writing they also were not ready for hedging. Because the lack of academic speaking there were problems with answering the questions after the presentation and participating in discussions.

Table 2

Thus, we can see that all the elements of academic culture are connected with academic skills practice and can be trained in the course of EFL. One of the ways to attract the student to academic sphere and to make them feel confident in academic culture world is to involve the students into research projects in English, developing the necessary skills. It helps the students to become a member of university academic community and to be competitive in case of making academic career.

Relying on experience with students in SUMIS, we have to note that Russian students experience the problems with text compression, paraphrasing, referencing, quoting. In literature, there is an opinion that the basics of these skills should be trained

at the stage of school education. University practitioners (not only the English language teachers) who face the need to teach university students academic reading and writing, without any doubt, can support this position.

We suppose that training skills of critical reading and writing, analysis and synthesis, research skills, including the ability to select and evaluate sources, to determine the topic, the problem of research, to develop its structure should be done on the basis of an interdisciplinary approach. This approach allows to combine academic skills and professional knowledge, which is especially important for the future professional.

Academic listening and academic speaking are also inextricably linked. Listening to lectures, participation in research conferences, group discussions on after listening, preparing public speeches based on the presentation - the necessary elements of academic preparation. The teachers of English, the lecturers in the special subjects, the faculty practitioners – all of us are interested in our students to be aware of academic culture issues.

Literature

1. Academic Literacy(2002): A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities Intersegmental Committee of the Academic Senates of the California Community Colleges, the California State University, and the University of California. Получено с <http://www/academic.senate.ca.us>.
2. Barbana, S., Dumay, X. and Dupriez, V. (2020) Local Implementation of Accountability Instruments in the French-Speaking Community of Belgium, *European Educational Research Journal*, 19 (2), 94-108.
3. Blickem, Ch., Shackelford, N. (2007) *Academic Literacies: Defining Terms, Exploring Models*: School of Language Studies, Auckland.
4. Célestine, C.L.D. and Gonondo, J. (2021) Academic Culture and Talent Cultivation: The Chinese Experience. *Journal of Comparative & International Higher Education* 13(1):133-150.

5. Contini, D. and Salza, G. (2020). Too Few University Graduates. Inclusiveness and Effectiveness of the Italian Higher Education System. *Socio-Economic Planning Sciences*, 71, Получено с <https://doi.org/10.1016/j.seps.2020.100803>.
6. Dill, David D.(2012) *The Management of Academic Culture Revisited: Integrating Universities In An Entrepreneurial Age. Managing Reform in Universities: The Dynamics of Culture, Identity and Organisational Change* (pp.222-237).
7. Erokhina, E.L. (2014) Academic culture of a research student in the context of the implementation of GEF. *Man and education*,2 (39),pp. 64 - 67.
8. Gerd, A.S. (2017) *The great academic dictionary of the Russian language*. M.: Science.
9. Gordienko, N.V. (2006) Formation of academic competencies among university students, Stavropol, p. 168.
10. Gourlay, L., & Stevenson, J. (2017) Teaching excellence in higher education: critical perspectives. *Teaching in Higher Education*, 22(4), 391–395.
11. Gudkov, D.B. (2000) *Intercultural Communication: Learning Problems*. - M.: Publishing House of Moscow University.
12. Gurkov, I.B. (2007) The integrated metric of the strategic process is an attempt at theoretical synthesis and empirical testing. *Russian Journal of Management*, 2 (5), pp 3-28.
13. Kempner, K. and Tierney, W. G. (2018) Academic Culture in an International Context. *The Social Role of Higher Education* (pp.1-10). Romito, M. (2020). *The Reshaping of Academic Culture. Academic Subjects Navigating the Study-Success Policy Assemblage*. Scuola democratica (ISSN 1129-731X).
14. Komarova, G.A. (2019) Scientific community as an interdisciplinary research field. *Political conceptology*, 1, pp. 133 - 150.
15. Korotkina, I.B. (2009) Opportunities to use foreign experience in the development of academic language skills in Russian education. *Bulletin of Moscow State Regional University. Series: Linguistics*, 3, pp. 81-85.

16. Mamardashvili, M.K. (1992) *As I understand philosophy*. - M.: Progress: Culture.
17. Merton R.K. (2010) *Sociology of Science and Sociology as Science*. Columbia University Press.
18. Naletova I.V., Prokhorov A.V. (2013) Academic culture as the idea of the university. *Historical, philosophical, political and legal sciences, cultural studies, art history. Questions of the theory and practice*. Tambov: Diploma. No. 12 (38): in 3 h. Part I. С. 137-141.
19. Neave, G. (2013) *The Evaluative State, Institutional Autonomy and Re-engineering Higher Education in Western Europe: The Prince and His Pleasure*, Basingstoke, Palgrave Macmillan.
20. Prokhorov, A.V. (2015) Eastern values of academic culture. *Bulletin TSU*, 1 (1), pp. 73-80.
21. Sanders, J.K.M. (2020) Editorial 2020: Changing publishing and academic culture. *R. Soc. open sci.*7: 192197. Получено с <http://dx.doi.org/10.1098/rsos.192197>.
22. Sepir, E. (1993) *Selected works on linguistics and cultural studies*. - M.: Progress.
23. Spence, C. (2019) Judgement versus metrics in higher education management. *Higher Education* 77(1).
24. Tierney, W. G. and Landford, M. (2018) Institutional Culture in Higher Education, *Encyclopedia of International Higher Education Systems and Institutions* (pp.1-9).
25. Vereshchagin, E.M., Kostomarov, V.G. (2005) *Language and culture*. M.: Indrik.
26. Wang, L. (2014) Quality Assurance in Higher Education in China: Control, Accountability and Freedom. *Policy and Society*, 33(3), 253–262. Получено с <https://doi.org/10.1016/j.polsoc.2014.07.003>.
27. Xi, Shen and Xianghong, Tian (2012) Academic Culture and Campus Culture of Universities. *Higher Education Studies*. Vol. 2, No. 2; June 2012.

28. Zhuravleva, O.I. (2015) New academic values as the basis of the corporate culture of a modern university. *Humanities*, 1 (29), pp. 82 - 84.