# DEVELOPING FOREIGN LANGUAGE COMMUNICATIVE COMPETENCE OF ENGINEERING STUDENTS WITHIN UNIVERSITY EXTRACURRICULAR ACTIVITIES

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The topic of the study is the analysis of forms of extracurricular work that contribute to the formation of foreign language communication competence among engineering students. The main tasks of the research are to identify the levels of formation of components of foreign language communicative competence among engineering students, the desire to work on self-improvement outside the classroom workload. Theoretical, empirical, statistical and mathematical methods have been used to conduct the empirical study. The participants were 64 students of the Educational-Scientific Institute of Mechanical Engineering, Technology and Transport of Chernihiv National University of Technology. The most popular language for learning among students is English. The majority of respondents (52%) have a medium level of foreign language proficiency, almost half of the students (43%) stated elementary level and only 5% of respondents have a high level of foreign language knowledge. However, the cultural component of students' foreign language communication competence is even less developed. The results obtained have given the ground for searching new forms of extracurricular work with engineering students. The authors identified the prospect forms of extracurricular work with such category of students, particularly: English cinema club, English Board Games Club, student Cultural Center, student culturary studio, hand-made studio, theatre studio, art studio, studio of additive technologies, student international fraternity, etc. Further study requires experimental verification of the effectiveness of the suggested forms of extracurricular work.

Keywords: extracurricular work; students of engineering specialities; foreign language communicative competence; intercultural dialogue.

## Introduction

In the current conditions of globalisation, European integration, activation of migration processes all over the world, the need to develop foreign language communication competence among young people is extremely important. This is especially true for engineering students, since the significant pace of development of science and technology requires constant updating of knowledge and experience, familiarisation with scientific inventions and the assets of specialists from different countries of the world.

The emergence of international corporations and joint ventures in the field of road transport, mobile phones, home appliances, furniture production and other require from professionals not only specific hard skills and knowledge, but also the possession of foreign language communicative competence, that is the knowledge of a foreign language, peculiarities of communication among representatives of a foreign culture, national features of facial expressions, gestures, etc. Thus, foreign-language communicative competence increases the competitiveness of professionals in the labour market.

The professional and personal development of young people occurs mostly during their studies at the university. That is why universities, in our opinion, should promote the formation of foreign language communicative competence among engineering students. As there is currently a tendency in Ukraine to significantly reduce classroom hours and increase the amount of time spent on independent student work, we propose to consider forms of extracurricular work with students that contribute to the formation of foreign language communicative competence.

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#### Literature review

Conducting the research we have studied the scientific publications, which could be divided into three groups: I) papers devoted to the interpretation of the concept of foreign language communicative competence; II) papers devoted to issues of developing foreign language communicative competence of students (accent – engineering students); III) papers devoted to issues of developing Universities' extracurricular activities (particularly – activities aimed at the development of students' foreign language communicative competence).

There are different scientific approaches to the interpretation of the concept of foreign language communicative competence. The scientist Nikolaeva (2010; 2013) offers to understand the foreign language communicative competence as the language knowledge, a high level of practical knowledge of both verbal and non-verbal means, as well as the experience of speaking a language at a variational-adaptive level depending on the specific speech situation. According to Nechiporuk (2014), foreign language communicative competence is an integrative formation of a personality, which has a complex structure and acts as an interaction and interpenetration of linguistic, sociocultural and communicative competences, the level of formation of which allows a specialist to effectively communicate in a foreign language. Dyvnych (2017) describes the following components of foreign language communicative competence: linguistic competence, listening and reading skills, writing and speaking skills, pragmatic and sociocultural competences. The critical analysis of existing scientific approaches to the interpretation of the concept of foreign language communicative competence showed the necessity of their integration. Therefore on the basis of mentioned above approaches of various scholars, within this article, we propose to define the foreign language communicative competence as foreign language skills, both verbal and non-verbal, which include listening and reading skills, writing and speaking skills, enabling a specialist to carry out their professional duties at a high level in the context of intercultural, inter-ethnic dialogue and mutual understanding.

Theoretical, methodological and applied aspects of *developing foreign language communicative competence of students* are widely disclosed in scientific publications. According to existing scientific publication researchers and educators propose various instruments and method of improving the efficiency of activities aimed at development of Universities students' foreign language communicative competence. On the point of view of Arno-Macia (2014), Richards (2001), Rennie (2013), Jung (2014) the achievement of higher results development of foreign language communicative competence requires the use of modern ICT in educational process. A range of papers are devoted to testing different pedagogical methods and tools that could be effectively used for the developing of foreign language communicative competence (Brooks, 2009; Feng, 2016; Kalamarz, 2014; Khairnar, 2015). In the same time, all mentioned above scientists research aspects of development of foreign language communicative competence in the framework of Universities curricular work.

During our research, we have also analysed scientific publications devoted to the specificities of development of foreign language communicative competence for students of engineering specialities. For example, Akmaldinova et al. (2015) analyses aspects of teaching English language for specific purposes for this category of students. Chupakhin (2016) introduces the author's view on features of application of System-Synergetic and Contextual approaches in training of future engineers. The Ukrainian researcher Feschuk (2016) discloses the conceptual foundations of foreign language teaching for students in applied mechanics. Zeng & Takatsuka (2009) suggest the text-based peer-peer collaborative dialogue in foreign language teaching. Stavytska (2017) explains the specifics of the use of multimedia in formation of foreign language competence of engineering students. The results of research conducted by mentioned above scientists are important for our study because they form it's theoretical, methodological and methodical background.

Different aspects of extracurricular work of higher education institutions are presented in numerous pedagogical scientific publications. Bartkus, Nemelka and Nemelka (2012) systemised the scientific approaches to defining the meaning of extracurricular activity. Evolution of extracurricular activities was researched by Casinger (n.d.), who analysed the development of forms of extracurricular work: from literacy clubs to various interest clubs, art clubs, cinema clubs, sports clubs, etc. Eccles and Barber (1999) described such forms of extracurricular work, as student council, volunteering, basketball, and marching band. Nowadays the forms of extracurricular work of Universities are much diversified, and they are wide spread in educational practice. Reeves (2008) identifies the advantages of students' participation in extracurricular activities. Chan (2016) identified the correlation between extracurricular activities and academic outcomes of students. The similar research on the benefits of extracurricular work of Universities was conducted by Fredricks and Eccles (2006). The results of the mentioned above research confirm that participation in

extracurricular activities develops the students' communicative competences and improves their academic outcomes.

The critical analysis of research in the area of development of Universities' extracurricular work allows to declare their high theoretical and practical value; but it also identified the gap in research, particularly the issue of integration of extracurricular activities into the process of development of foreign language communicative competence of engineering students. Therefore, we identify it as the research question within this article.

The aim of the article: on the basis of empirical research and experience of Chernihiv National University of Technology, to study the forms of extracurricular work that will contribute to the development of foreign language communication competence among engineering students.

### Methods

Research design. Within the research, we used the following empirical method: questionnaires, pedagogical observation, conversations that helped to identify the level of formation of components of foreign language communicative competence among engineering students, as well as the readiness to their formation in extracurricular work; expert opinion of foreign language teachers working with respondents.

*Instruments and procedures.* For the empirical study of the formation of foreign-language communicative competence among engineering students, an author's questionnaire has been developed (Appendix 1), which included two blocks of questions:

- 1. Questions regarding the linguistic component of a foreign language communicative competence
- 2. Questions concerning the socio-cultural component of foreign language communicative competence The author's questionnaire consisted of 12 questions:
- 3 questions of a general nature for determining the age, gender, speciality;
- 11 open and closed questions to determine the subjective assessment of the level of formation of foreign language communicative competence, as well as attitude to the improvement of this competence.

In addition to interviewing the respondents, there has been also an informal conversation about their attitude towards deepening their foreign language skills, their desire to engage in extracurricular activities, their attitude towards internships and student exchange programmes, as well as whether only foreign language skills are sufficient for effective communication between representatives of different languages. What is more, a conversation has been held with experts – foreign language teachers on the analysis of the objective level of students' knowledge and methods used in the classroom.

*Data analysis*. The analysis of the results obtained during the research was conducted by using statistical methods. Presenting the research results we paid special attention to their visualisation – the graphical method was used for realisation of this purpose.

Research Sample. Respondents were 64 third-year students from the Educational and Scientific Institute of Mechanical Engineering, Technology and Transport of Chernihiv National University of Technology. Representatives of the third year were selected because by this time they already have a clear understanding of the specificities of their profession, some practical experience, experience of extracurricular activities, a basic set of professional theoretical knowledge and foreign language skills. This sample population is representative, since the general population of students of the 3rd year is 113 people, i.e. the sample population is 57% of the general population. Most of the respondents are men (88%), since the vast majority of young men study in groups of engineering specialities. Three foreign language teachers working with the respondents became experts.

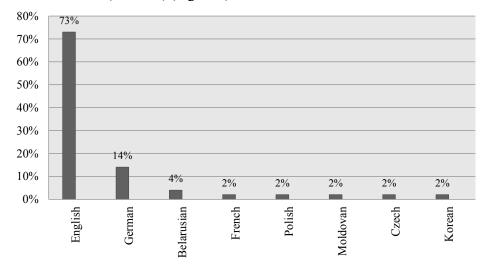
Validity and reliability. Validity and reliability of the research data are ensured by the fact that the level of formation of components of the respondents' foreign language communicative competence and their willingness to develop it in extracurricular work has been tested by different methods (questionnaire, pedagogical observation, interview, expert opinion). The results of the mentioned methods are the same.

Ethical principles of research. Participants of the pedagogical experiment agreed to participate in it without pressure and signed the consent to participate. The experiment was conducted in compliance with all ethical requirements.

## Results

Analysis of the results of the empirical study of the formation of foreign language communicative competence among engineering students gives grounds to state the following. The majority of respondents (84%) noted the importance of having a foreign language knowledge to work with foreign clients, partners, colleagues and, in general, for a successful professional career. Among the languages spoken or studied by the respondents, except for Russian (since in Ukraine, in fact, all speak two languages Ukrainian and Russian), English is the main language (73%), some respondents stated German (14%), a

small number of respondents indicated Belarusian. (4%), some students mentioned French, Polish, Moldovan, Czech and Korean (2% each) (Figure 1).



**Figure 1. Languages spoken or learned by engineering students**Source: own design based on a 2019 survey conducted at Chernihiv National University of Technology

During the conversation, students stated that they consider English as the main foreign language for studying because it is international and opens up greater horizons and opportunities for communication with representatives of different nationalities, countries and cultures. Other languages are mostly studied for personal interest: the prospect of employment or internship in a particular country; the presence of friends, relatives or acquaintances who are native speakers; desire to know more languages.

At the same time, 43% of respondents indicated that they know a foreign language at the elementary level (CEFR – Elementary A2), 52% indicated that they speak a foreign language at a high level (CEFR – Intermediate B1) (Figure 2). Foreign language teachers confirmed the results of the survey and stated that the majority of respondents have a medium level of a foreign language, but the number of students with a high level is quite small.

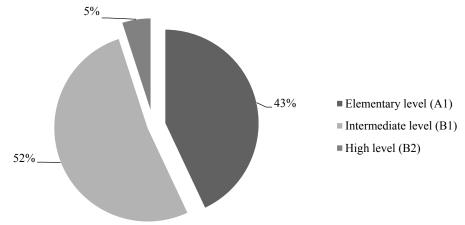


Figure 2. Levels of foreign language proficiency among engineering students
Source: own design based on a 2019 survey conducted at Chernihiv National University of Technology

Regarding the experience of communication with representatives of other cultures, countries, nationalities, respondents answered in the following way: "Communicate often with representatives of other cultures, countries, nationalities" (28% of the respondents); "Sometimes have to communicate with representatives of other cultures, countries, nationalities" (55%); "Do not have experience in communication with representatives of other cultures, countries, nationalities" (17%).

Among the difficulties in communication with foreigners, 52% of respondents indicated a lack of knowledge of a foreign language, 29% – difficulties in understanding, not related to the language (different stereotypes of tradition, customs, cultural characteristics, etc.). This result demonstrated that students are highly motivated to improve their level of foreign language communication skills, all: linguistic, listening, reading, oral and written, and sociocultural.

For the open-ended question, "What does intercultural dialogue mean to you?", each respondent could have indicated several options, so the amount of percentage here is more than 100%. The majority of respondents (56%) stated that intercultural dialogue is a dialogue and understanding between representatives of different cultures; 25% said it is tolerance and respect for representatives of other countries; 14% believe it means an exchange of information with a foreigner about values, traditions and customs; 19% establishing contact between representatives of different countries; 16% – understanding of the person with whom you are in dialogue. Some of the respondents (37%) said that they were introduced to the concepts of intercultural dialogue, intercultural environment, tolerance and respect for representatives of other countries, cultures, nationalities during the classroom sessions at the university, and another 31% of respondents learned about these concepts during extracurricular projects and activities at the university, 7% indicated that they were acquainted with these concepts outside the university, 25% indicated that they are not familiar with these concepts. Therefore, gaps in the understanding of the concept of "intercultural dialogue" of students are a consequence of insufficient attention to this issue in the educational environment. Thus, we can state the need to find additional forms and methods of working with students in the conditions of the university, which will contribute to the formation of knowledge and skills of cultural dialogue, tolerance, respect for representatives of other cultures.

During the conversation with the experts, it turned out that even those students who have theoretical knowledge of a medium level foreign language have some difficulties in communicating with representatives of other countries, cultures, nationalities. Experts associate this with a psychological barrier – fear of misunderstanding, fear of being nonsense and looking ridiculous. These fears do not allow the full use of theoretical knowledge in practice. At the same time, 68% of respondents said that readiness to communicate with representatives of other countries, cultures, nationalities is important for their future professional activity, 25% found it difficult to say this, and 7% said that willingness to communicate with representatives of other cultures does not matter for future professional activity. As for the possible ways of getting information on this issue, 47% of the respondents said that they would be interested to learn more about intercultural dialogue and peculiarities of interaction with representatives of other countries, cultures, nationalities during training sessions, 42% of respondents chose to participate in extracurricular events and projects, 11% said they are unwilling to deepen their knowledge on the subject. Such results confirm the need to find new forms and methods of working with engineering students, including outside the classroom that would contribute to the formation of foreign language communicative competence.

## **Discussion and Recommendations**

The conducted empirical study gives us grounds to argue for the need to promote the formation of foreign language communicative competence among engineering students. At the moment, the focus of attention of both students and teachers is confined mainly to the formation of the linguistic component of the foreign language communicative competence of professional direction, and the formation of socio-cultural competence remains virtually out of focus. At the same time, according to the results of the research, students are aware of the importance of this component for the fulfilment of their professional duties in the future and consider it extremely necessary.

Despite the considerable number of scientific achievements in the field of approaches and methods of teaching foreign languages, which we have analysed above, according to the results of our study, it is evident that there is an insufficient number of classroom hours to form foreign language communicative competence. We consider this result is caused by a significant reduction in the hours of study in general and the hours given for the study of the humanities in particular. Given the lack of time, as students have observed, the study of a foreign language at the university focuses on vocational-oriented terminology. At the same time, a significant number of respondents need to improve their language skills in interpersonal communication. Students have shown considerable interest in furthering the formation of components of foreign language communicative competence during their studies at the university, both in the classroom and outside the classroom, that is during extracurricular activities. In the context of reducing hours of classes and hours allocated to the humanities, it is becoming necessary to use the potential of extracurricular work with students. We support the idea of Fredricks and Eccles (2006) about the strong positive influence of extracurricular activities on students' academic outcomes.

The results of a preliminary study conducted at the Chernihiv National University of Technology among engineering students regarding their attitude toward extracurricular work, showed the willingness of the majority of respondents (82%) to participate in qualitatively and interestingly organised extracurricular work and believe that their extracurricular work has an impact on their personality and professional development of the future specialist (Vodovozov, et al, 2018). Our research confirmed the conclusions of Fredricks and

Eccles (2006) who substantiated that students who have participated in numerous long-term extracurricular activities demonstrate much better learning outcomes and development level of communicative competences than students taken part in one extracurricular activity. We agree with Nemanick and Clark (2002) about the promising possibility of including of experience obtained during the extracurricular activities/projects to the students' resumes.

Theoretical, empirical, statistical and mathematical methods have been used to conduct the study. The sample was formed with the 64 engineering students of Chernihiv National University of Technology (particularly students of Educational-Scientific Institute of Mechanical Engineering, Technology and Transport). The specific of respondents is their attitude and experience in participation in extracurricular activities of the University.

Forms of extracurricular activities. On the basis of the obtained results of conversations, pedagogical observation and analysis of scientific and methodological literature, we come to the conclusion about the necessity of diversification of forms of extracurricular activities. In our opinion proposed by Artemenko and Lipko (2009), forms of extracurricular activities (such as works in small groups, interactive learning, gamification) nowadays should be improved according to modern interests of students. Within our research, we propose the forms of extracurricular work with students of engineering specialities that will contribute to the formation of components of foreign language communicative competence, presented in Figure 3.

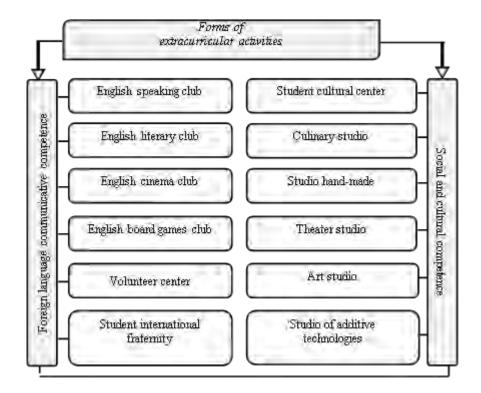


Figure 3. Forms of extracurricular work with engineering students

All the forms we have divided into two groups, respectively to their influence on the formation of components of foreign language communicative competence: linguistic and socio-cultural competences. Since, according to the results of empirical research, English is the preferred foreign language for most of the respondents, we propose to focus extracurricular activities on the development of English language communicative competence. One of the main forms of this group is *English speaking club*. Students, undergraduates, graduate students and young scientists can participate in this club. It is advisable for the club manager to be an experienced English teacher or native speaker. The topics of the meetings should be related to the culture and traditions of different countries of the world, peculiarities of everyday life, historical interesting facts. It is advisable to invite native speakers at the meeting. Announcements of topics and photos of meetings with a brief emotional description should be posted on a specially created page on social networks. This will help to promote this form of extracurricular work and motivate students to participate. Another interesting form of extracurricular work is the *English Literary Club*. We suggest the following activities of this club:

- bookcrossing exchange of English-language books, discussion of coffee book experiences. A
  prerequisite is to register a book on the club's website;
  - poetry meetings reciting English poems of different poets, presenting one's own English poetry;
  - presentations of literary works presentations of English-language books by contemporary authors.

The manager creates a meeting schedule. For each meeting, a moderator is selected who coordinates the participants and announces the topic of the meeting on the site or on social networks or chat, in a group, via messenger of the club. During the conversation with the students, it became clear that one of the types of leisure, which they like very much, is to watch an interesting movie. Therefore, we offer a slightly modified form of the traditional student cinema – *English cinema club*. Students will watch English films and, after viewing, exchange their impressions and thoughts in English over tea. Students also expressed interest in board games such as Alias, Dixit, Cash Flow. We suggest an interesting and useful form of extracurricular work with students – *English Board Games Club*. The essence of this club is that the participants can play board games only in English. The game schedule is posted on a dedicated site or on social networks. Everyone must register for the game.

Nowadays volunteering is very popular in Ukraine. We suggest combining volunteerism with enhancing linguistic competence through the involvement of *Peace Corps volunteers*, as well as through participation in international charity volunteer events, projects and programmes. The last of the group of forms of extracurricular work that influence the formation of a foreign language communicative competence is the *student international fraternity*. It is an association of engineering students from different educational institutions around the world who can freely communicate in English, share interesting ideas, participate in joint projects and start-ups. The platform for communication of participants can be a group on social networks, a messenger or other. Leaders or coordinators of the above-mentioned forms of extracurricular work can be students, graduate students, undergraduates, or young scientists who speak English at B2 or C1 level. It should be noted that designing this form of extracurricular work we grounded on the research of Feschuk (2016) and Kalamarz (2014). These scientists have proved the necessity of combining of development foreign language communicative competence with the development of key professional competences of engineering students.

The second group of forms of extracurricular work that influence the formation of sociocultural competence includes: *Student Cultural Center* – an association of students whose main purpose is to get to know and exchange cultural traditions and customs of different nationalities. The participants of this centre study the peculiarities of traditions and customs of different countries of the world, and then arrange days or weeks of different cultures at the university. Each such event must be prepared in great detail for a deep dive in the authenticity and culture of a particular nationality.

Gastronomic culture or culinary traditions are an integral part of national culture. It is very important for foreigners to know the gastronomic preferences of the local population, the features of local traditional dishes and the traditional consumption of certain products. Lack of awareness of these issues can lead to sometimes uncomfortable situations. Therefore, we consider it advisable to organise *student culinary studio* activities. The purpose of this studio is not so much the formation of culinary skills, but the introduction to the traditional dishes of different countries of the world and the secrets of their preparation, serving and culture of consumption.

For a deeper study of the traditions and customs of different peoples of the world, we offer such form of extracurricular work with students as a *hand-made studio*. The participants of this studio will study the features of decorative and applied art of different countries of the world, their traditional techniques and technologies. In order to better understand national specifics, we propose to use the means of theatrical art. Therefore, it would be advisable to use such form of extra-curricular work with students as *a theatre studio*. In order to develop sociocultural competence among engineering students, the repertoire of performances of this studio should be selected in such a way that they acquaint viewers and actors with national traditions, customs and cultural peculiarities. A similar mission is pursued by *the art studio*, which focuses on the fine arts as a bearer of the cultural heritage of different nations of the world. Participants of the art studio create paintings and other art objects according to a theme of a particular nationality, using special techniques and technologies that have traditionally been used in the culture.

The last form of the second group is a studio of additive technologies. For the representatives of engineering specialities, this studio will be interesting, since the creation of art objects, elements of everyday life and culture will be carried out using the technology of layer-by-layer synthesis, i.e. 3D-printing. At present, 3D-printing is one of the most dynamic areas of "digital" production in Ukraine (Androschuk, 2017). The dynamics of development of the additive technology market is ahead of other industries. We are in conformity with Androschuk (2017), because we think that the development of the on-line system of

extracurricular work could engage the engineering students who combine studying and job, and students studying remotely.

Discussion of the results. In the context of our research, we agree with Chupakhin (2016) who confirmed the using of system-synergetic and contextual approaches during the work with engineering students. According to the research results of this scientist, we designed the set of forms of extracurricular activities which are complemented, and are effective in simultaneous introduction into the educational process. Taking into account to the obtained results of the experimental research, we support the opinion of Massoni (2011) on the necessity of integration of extracurricular activities and/or projects into the educational process because of their positive effect on the development of skills and communicative competences of students. At the same time, we agree with Reeves (2008) who confirmed the probability of some negative effects of extracurricular work, particularly on educational performance of participants of events because of their inability to find a balance between studying and extracurricular activities. Therefore, educators organising the extracurricular activities should pay a great attention to the combination of such activities and learning process on the principles of optimisation and scientific grounding.

The list of forms of extracurricular work contributing to the formation of foreign language communicative competence, presented in this article, is not exhaustive, and its effectiveness requires further detailed experimental verification. For a more detailed study of the problem of the formation of foreign language communicative competence, we consider it necessary to further study the experience of universities in different countries of the world. Also, the perspective of future research is the digitalisation of forms of extracurricular work with engineering students, designed within the article.

Recommendations for educators. The extracurricular work with the engineering students should be planned according to course and year of their studying. It is caused by the necessity of professional orientation of the process of development of foreign language communicative competence. So types of activities and events have to correspond with theoretical knowledge and skills that were previously obtained during the educational process. In our opinion, the effective implementation of designed forms of extracurricular activities needs the following pedagogical preconditions: methodical support of Universities' teachers responsible for extracurricular work with engineering students; distinct action plan and clear internal organisation process; pedagogical mastery of Universities' teachers; appropriate software and technical maintenance; students' motivation to participation in extracurricular events.

Implications for research and practice. Implementation of designed within the article forms of extracurricular work allow improving the development of foreign language communicative competence of engineering students. This competence could improve the competitiveness level of students in the labour market, and also could be useful in the career promotion. Professional orientation of the process of development of foreign language communicative competence within the Universities' extracurricular work and mastering of modern ICT facilitate the improving of professional skills of engineering students.

*Limitations.* We consider it appropriate to emphasise that the results of the questionnaire are subjective, based on participants' self-esteem, apply only to a specific category of students – engineering students participated in extracurricular activities/projects of the Universities.

## **Conclusions**

The presence of foreign-language communicative competence among engineering students is a necessity in the current conditions of the development of science and technology. The availability of this competence significantly increases the competitiveness of professionals in the labour market. Therefore, the formation of foreign-language communicative competence should occur while studying at the university. In the face of reduced classroom hours, extracurricular work with students is becoming increasingly important. Forms of extracurricular work with students can be conditionally combined into two groups, which correspond to the influence on the components of foreign language communicative competence. Further investigation requires verification of the effectiveness of the proposed forms.

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#### References:

- Akmaldinova, O. M., Buhaiov, O. Ye., Tereminko, L. H., Hurs'ka, O. O., Myslyva, T. A. & Murkina, N. I. (2015). *Professional English. Fundamentals of Software Engineering*. Kyiv: NAU
- Androschuk, H. (2017). Additive technology: prospects and challenges of 3D-print (Second part). *Science, technology, innovation,* 2(2), 29-36. Retrieved 15.12.2019 from http://dspace.nbuv.gov.ua/handle/123456789/150726
- Arnó-Macià, E. (2014). Information Technology and Languages for Specific Purposes in the EHEA: Options and Challenges for the Knowledge Society. In E.Bárcena, T.Read, & J.Arús (Eds.), Languages for Specific Purposes in the Digital Era. Educational Linguistics, 19 (pp.3-26). https://doi.org/10.1007/978-3-319-02222-2 1
- Artemenko, T.M. & Lipko, I.P. (2009). Deiaki problemy navchannia efektyvnoho spilkuvannia inozemnoiu movoiu [Some problems of learning effective communication in a foreign language]. *Teaching languages at higher educational institutions at the present stage. Interpersonal relations: a collection of scientific articles, 14,* 32-39.
- Bartkus, K.R., Nemelka, B. and Nemelka, M. (2012). Clarifying the meaning of extracurricular activity: A literature review of definitions. *American Journal of Business Education*, 5(6), 693–703. https://doi.org/10.19030/ajbe.v5i6.7391
- Brooks, L. (2009). Interacting in pairs in a test of oral proficiency: Co-constructing a better performance. *Language testing*, 26 (3), 341-366. https://doi.org/10.1177/0265532209104666
- Casinger, J. (n.d.). College extracurricular activities: the history of activities. Retrieved 18.01.2020from http://www.articledashboard.com//Extracurricular-Activities--the-History-of-Activities
- Chan, Y-K. (2016). Investigating the relationship among extracurricular activities, learning approach and academic outcomes: A case study. *Active Learning in Higher Education*, 17(3), 223–233. https://doi.org/10.1177/1469787416654795
- Chupakhin, S. A. (2016). Zastosuvannia systemno-synerhetychnoho ta kontekstnoho pidhodiv pry formuvanni profesiinoi kompetentnosti u maibutnikh inzheneriv-zviazkivtsiv [Application of System-Synergetic and Contextual Approaches for the Formation of Professional Competence of Future Engineers-Signalmen]. Virtus, 8, 121-124. Retrieved 10.12.2019 from: http://dspace.tneu.edu.ua/jspui/bitstream/316497/1129
- Dyvnych, H. (2017). Anhlomovna kompetentnist derzhavnykh sluzhbovtsiv Ukraini: kryterii, pryntsypy ta shliakhy otsiniuvannia [English-speaking competence of civil servants in Ukraine: criteria, principles and ways of assessment] *Visnyk Kyivskoho natsionalnoho universytetu im.T.Shevchenka. Derzhavne upravlinnia, 2 (9),* 22-26. Retrieved 15.01.2020 from http://www.jpa-univ.kiev.ua/index.php/ua/2-uncategorised/29-divnich-g-a
- Eccles, J. S. and Barber, B. L. (1999). Student council, volunteering, basketball, or marching band: What kind of extracurricular involvement matters? *Journal of Adolescent Research*, *14*, 10–43. https://doi.org/110.1177/0743558499141003
- Feng, Y. (2016). Teaching speech acts in EFL classroom: an implicit pedagogy. Sino-US English teaching, 13 (7), 515-520. https://doi.org/10.17265/1539-8072/2016.07.002
- Feschuk, A. (2016). Conceptual basis of professionally oriented foreign language training of future specialists in applied mechanics. *Advanced Education*, *5*, 42-48. https://doi.org/10.20535/2410-8286.62669
- Fredricks, J. A. and Eccles, J. S. (2006). Extracurricular involvement and adolescent adjustment: Impact of duration, number of activities, and breadth of participation. *Applied Developmental Science*, 10, 132–146. DOI: 10.1207/s1532480xads1003\_3
- Fredricks, J. A. and Eccles, J. S. (2006). Is extracurricular participation associated with beneficial outcomes: Concurrent and longitudinal relations? *Developmental Psychology*, 42, 698–713. https://doi.org/10.1037/0012-1649.42.4.698
- Jung, B. & Lim, S. (2014). Building E-learning apps with multimedia contents for learning language variations. *International Journal of Multimedia and Ubiquitous Engineering*, 9(11), 339-348. https://doi.org/10.14257/ijmue.2014.9.11.33
- Kalamarz, R. (2014). Blending foreign language learning with key competences. Does e-learning do the trick? *Int. J. Cont. Engineering Education and Life-Long Learning*, 24 (1), 97-111. https://doi.org/10.1504/ijceell.2014.059336
- Khairnar, C. (2015). Advance Pedagogy: Innovative Methods of Teaching and Learning. *International Journal of Information and Education Technology*, 5(11), 869-872. https://doi.org/10.7763/ijiet.2015.v5.629
- Massoni, E. (2011). Positive Effects of Extra Curricular Activities on Students. *ESSAI*, 9, Art. 27. Retrieved 18.01.2020 from http://dc.cod.edu/essai/vol9/iss1/27
- Nechiporuk, O. (2014). Inshomovna kompetentnist, yak peredumova profesiinoho rozvytku pedahoha [Foreign language competence as a prerequisite for the professional development of the teacher] *Pedagogichnyj Poshuk, 2 (82),* 16-18. Retrieved 03.12.2019 from: www.irbis-nbuv.gov.ua >irbis\_nbuv> cgiirbis\_64
- Nemanick, R.C. and Clark, E.M. (2002) The differential effects of extracurricular activities on attributions in résumé evaluation. International Journal of Selection and Assessment, 10, 206–217. https://doi.org/10.1111/1468-2389.00210
- Nikolaeva, S. Ju. (Ed.) (2013). *Metodyka navchannya inozemnyx mov i kul'tur: teoriya i praktyka* [Methods of teaching foreign languages and cultures: Theory and Practice]. Kyiv, Ukraine: Lenvit.
- Nikolaeva, S. (2010). Tsili navchannia inozemnykh mov v aspekti kompetentnisnoho pidkhodu [Aims of foreign language learning in the competence approach] *Inozemni movy*, 2, 11-17. Retrieved 15.01.2020 from http://www.library.univ.kiev.ua/ukr/elcat/new/detail.php3?doc\_id=1327210
- Reeves, D. B. (2008). The extracurricular advantage. *Education Leadership, 66 (1),* 86-87. Retrieved 15.03.2020 from http://www.ascd.org/publications/educational-leadership/sept08/vol66/num01/The-Extracurricular-Advantage.aspx
- Rennie, F. & Morrison, T. (2013). *E-learning and social networking handbook: Resources for higher education*. Routledge. https://doi.org/10.4324/9780203120279
- Richards, J., & Rodgers, T. (2001). Approaches and methods in language teaching (2nd ed.). Cambridge: Cambridge University Press.
- Stavytska, I. (2017). The formation of foreign language competence of engineering students by means of multimedia. *Advanced* Education, 7, 123-128. https://doi.org/10.20535/2410-8286.95301
- Vodovozov, V. & Raud, Z. & Detsiuk, T.M. (2018). The model of extracurricular work with students of engineering specialties. *Advanced Education*, 10, 55-61. https://doi.org/10.20535/2410-8286.143528
- Zeng, G. & Takatsuka, S. (2009). Text-Based Peer-Peer Collaborative Dialogue in a Computer-Mediated Learning Environment in the EFL Context. *System: An International Journal of Educational Technology and Applied Linguistics*, *37*(3), 434-446. https://doi.org/10.1016/j.system.2009.01.003

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## Appendix 1

# QUESTIONNAIRE (extract of relevant to the article questions)

Please indicate some per Your gender:- male		on:				
Your age:a) 17-19	б) 20-22	в) 22-24	г) older 24			
Year/course: a) 1	б) 2 в) 3	г) 4	<i>ð)</i> 5			
Specify your speciality _						
1. Have you ever participa) yes b) no I'm not interested c) no. But I plan to take g d) I didn't know about so	part in extracurri			ersity?		
2. Is it important for you a) yes b) it is difficult to answe c) no		know a fore	ign language -	for cooperation w	vith foreign client	ts / partners / colleagues?
3. Do you know some for a) yes b) no	reign languages	?				
<ul><li>4. What foreign language</li><li>a) English</li><li>b) German</li><li>c) French</li><li>d) another language (ple</li></ul>	·					
5. What level of foreign a) Elementary level (A2) b) Intermediate level (B2) c) High level (B2)	)	lo you have?				
6. Do you have experien a) Yes, I communicate o b) Sometimes have to co c) No, I do not have experience.	ften with represe mmunicate with	entatives of or representativ	ther cultures, cores of other cul	ountries, national tures, countries, r	lities nationalities	
7. What difficulties have a) I did not have any diff b) language barrier (lack c) non-language related d) another (please, speci	ficulties of foreign langu understanding di	age skills)				
8. Are you familiar with other cultures, countries, a) Yes, I studied it at clab) Yes, I find it out during another (please, specific d) No. I do not know any	, nationalities? sses ng the extracurric fy)	cular activitie	_	ultural environm	ent, tolerance and	d respect for representatives of
9. What does intercultura	al dialogue mean	to you?				
cultures, countries, natio a) Yes b) It is difficult to answe c) No	nalities? er		·			e with representatives of other
11. Would you be intere	sted in learning	more about is	ntercultural dia	logue and how to	o interact with re	presentatives of other cultures,

- countries, nationalities?
- a) Yes, it would be interesting to find out about it during training sessions
- b) Yes, it would be interesting to find out about it during participation in extracurricular events and projects
- c) No, I am not interesting
- d) I want to find out about it by myself