



Copyright © 2021 by Academic Publishing House Researcher s.r.o.

All rights reserved.

Published in the Slovak Republic

European Journal of Contemporary Education

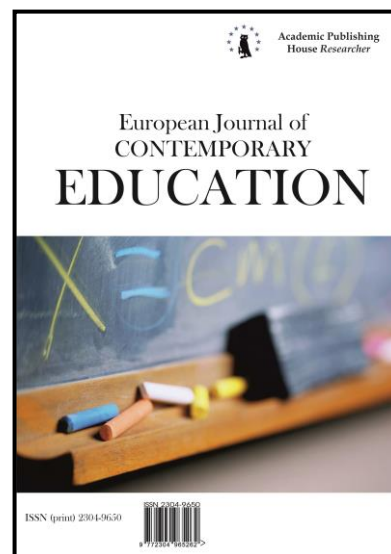
E-ISSN 2305-6746

2021, 10(1): 159-172

DOI: 10.13187/ejced.2021.1.159

[www.ejournal1.com](http://www.ejournal1.com)

**IMPORTANT NOTICE!** Any copying, reproduction, distribution, republication (in whole or in part), or otherwise commercial use of this work in violation of the author(s) rights will be prosecuted in accordance with international law. The use of hyperlinks to the work will not be considered copyright infringement.



## International Students Cultural Diversity Clustering for Building HEI`s Adaptive Academic Environment

Yulia P. Ten <sup>a,\*</sup>, Liliya V. Prikhodko <sup>a</sup>, Alexander S. Linnikov <sup>a</sup>

<sup>a</sup> Financial University under the Government of the Russian Federation, Moscow, Russian Federation

### Abstract

The relevance of this study is due to the increasing importance and role of universities in the context of growing competition in the international market of educational services. Higher education institutions face the problem of needing to adapt their educational and socio-cultural environment for international students from different countries. Therefore, the aim of this study is to classify the national cultures of students so as to formulate recommendations for universities regarding the development of effective strategies for helping foreigners adapt to their host socio-cultural and educational environments. The study is interdisciplinary in nature and based on international concepts, approaches and methods from the philosophy of education, sociology, theory of intercultural communication and cross-cultural management. The authors use system-structural and comparative methods of culture analysis, as well as cluster analysis techniques.

The authors' sociological survey of international students studying in Russia during the 2019–2020 academic year formed the empirical base of the research. The regression analysis was applied to reveal correlation relations between indicators such as the degree of socio-cultural adaptation, learning adaptation, and degree of external locus of control of international students. The article presents culture as a multilevel system, with individual, organizational, national and global tiers. Based on the experience gained in scientific literature on the typology of cultures, we can see that students from different countries can be grouped based on two main criteria: Geographic and Mental/Cultural. Detailed recommendations are given for host universities wishing to develop an adaptive socio-cultural and educational environment.

**Keywords:** culture, multilevel culture model, cross-cultural competence, international students, barriers to intercultural adaptation, typology of cultures, cultural clusters.

---

\* Corresponding author

E-mail addresses: [YPTen@fa.ru](mailto:YPTen@fa.ru) (Y.P. Ten), [LVPrikhodko@fa.ru](mailto:LVPrikhodko@fa.ru) (L.V. Prikhodko), [ASLinnikov@fa.ru](mailto:ASLinnikov@fa.ru) (A.S. Linnikov)

## **1. Introduction**

### **1.1. The relevance of the problem**

Changes in socio-political, trade, economic, scientific and technical trends all over the world have led to an increased interest in cooperation between foreign countries in a variety of areas. These international relations are built on the principles of modernism (the primacy of knowledge, learning and innovation), pluralism (recognizing the plurality of codification of different norms and values) and tolerance (respect for differences), which contribute to mutual understanding and ability to solve international problems, which are of particularly important. Education is the socio-cultural institution through which representatives of different peoples can enrich their lives and professional experiences in a different socio-cultural and educational environment, thus acquiring and developing cross-cultural competence (Li, 2020).

Today's world of international economies and businesses, as well as the increased need to solve global problems (pandemics, environmental crisis, man-made disasters, etc.) has led experts to use cross-cultural competences to analyze phenomena and processes, both national and international, in a more objective and systematic way. Cross-cultural competence is "a multilevel and multidimensional process through which providers acquire capacities and create opportunities that enable them to operate effectively across different working contexts (i.e., intrapersonal, interpersonal, organizational, and community)" (Garrido et al., 2019: 91).

Cross-cultural competence is an important quality that helps politicians, businessmen, scientists, doctors, engineers, economists, lawyers, and environmentalists from around the world achieve a better understanding of the common challenges facing humanity. It is already a fact that the process of globalization has led to the expansion and deepening of international contacts and interactions between countries in science and education. Students find the educational experience and research opportunities in foreign universities more and more attractive.

These international experiences show that the most effective strategy for achieving successful international cooperation is integration: preserving one's own socio-cultural identity while gaining knowledge and borrowing progressive innovative achievements in science, culture and education from other countries so as to further develop one's own society.

This exportation of education fits the universal model of intercultural communication: one of the parties is the host country, i.e. the subject of communication, which accepts international students who in turn are the subjects of a different socio-cultural system. International students face intercultural communication issues in their host countries, which affects to some extent the effectiveness of the host university's education.

In intercultural communication models for communication between two cultures, it is first necessary to choose a code system – verbal and non-verbal (i.e. language, forms and means of non-verbal communication). Second, the degree of cultural distance must be defined (understanding the similarities and differences between the host culture and the culture of international students). Third, learning models should be adapted to the mental and cultural peculiarities of international students. Finally, international students must adapt to the host countries social and cultural norms.

The clustering of international students by culture is necessary for scientists, experts, and educators in higher education to best understand the potential societal and cultural problems international students face in their host countries, as well as to prevent unnecessary risk and conflicts. Additionally, the authors of this article believe that clustering students by cultural, linguistic, and religious values and traditions will help universities create an adaptive socio-cultural and educational environment.

### **1.2. The objective and tasks of the research**

The objective of the study is to create a method of international students clustering by various means so as to best formulate recommendations for creating an adaptive socio-cultural and educational environment at the university.

In accordance with the set objective, the following scientific tasks of the research are:

- clarify the concept of "culture" in order to analyze culture as a multi-level system;
- formulate a method of international students clustering by different countries, regions, languages, religions;
- develop, by means of regression analysis methods, indicators of the specifics of international students' perception of the process of studying and staying in Russia, measured by

ordinal scales: the degrees of socio-cultural adaptation, learning adaptation, and expressed external locus of control in the process of studying.

## **2. Materials and methods**

### **2.1. Theoretical and empirical methods**

The study uses concepts, categories, approaches and methods from social philosophy, cultural anthropology, sociology, the theory of intercultural communication and cross-cultural management. The complexity of the issue under study determines the authors' decision to use the method of system and structural analysis of culture and its types. To give an idea of the degree of cultural differences between representatives of different social communities, a comparative method is used. Cluster analysis presupposes division of the studied totality into groups uniting objects with characteristic general similarity in relation to each other and common differences in relation to objects included into other groups.

As part of the research, a sociological survey of foreign citizens who are students at Moscow regional universities for the 2019–2020 academic year was conducted. The survey was focused on identifying certain parameters for clustering the students. It was based on analysis of the data gathered from international students studying at the higher educational institutions (HEIs) located in Moscow region of Russia. Moscow region being a capital region with the high level of HEI's concentration traditionally attracts international students from diverse countries and cultures. Moscow region is one of the top priorities among the most preferable study destination for international students in Russia. Moscow HEIs become an alma mater for more than 34 % of international students studying in Russia (Belyakov, 2016: 11).

The sample of respondents within the conducted sociological survey was 262 international students and it has been considered as reliable for the Moscow region.

The survey was conducted in the form of an electronic survey using SurveyMonkey, an online survey software product. The questionnaire consisted of questions aimed at identifying cultural and attitudinal values of respondents, as well as revealing cross-cultural problems faced by the students during their studies in Russian universities. To maximize audience coverage, respondents could choose either the Russian or English versions of the survey. Respondents ranged from 18 to 30 years old, with 57 % of respondents being male and 43 % female.

The authors used statistical methods within the framework of regression analysis for the study. The obtained regressions were set using SPSS Statistics 24.0 program. Regression analysis made it possible to reveal correlation relations between indicators such as the degree of socio-cultural adaptation, learning adaptation, and degree of external locus of control of international students. In addition, the use of linear regression values, which is, in fact, an extrapolation graph, provided the development of a probabilistic scenario of such indicator as the level of international students' learning adaptation, depending on the level of their socio-cultural adaptation.

The present article based on conducted research provides the recommendations regarding the developing of adaptive academic environment for international students for the HEIs located in the Moscow region of Russia and useful insights for academic society on the whole.

## **3. Results**

### **3.1. Clarifying the basic concepts**

It is important to analyze the concept of culture as a multilevel system in order to assess the current state and identify key issues for further research on the peculiarities of cultural adaptation of students to the host foreign [for them] socio-cultural and scientific-educational environment.

Culture includes patterns of thinking and behavior, common meanings, and meanings that members of one society attribute to different phenomena, natural or artificial. It also includes artifacts, skills, abilities, and technologies passed down from generation to generation or transmitted to other cultures in the process of intercultural communication.

Culture is a highly complex, structural education composed of various components (knowledge, notions, ideas, ideals, values, norms, symbols, patterns and technologies). From the point of view of the system and structural approach, culture is a complete multilevel system. Thus, in 1960 K. Oberg (Oberg, 1960) proposed a model of culture as an iceberg consisting of "visible and invisible parts" (Selfridge, Sokolik, 1975). E.H. Schein proposed an additional dimension of culture, which reflects the level of its visibility, from the most visible to the least visible element of culture

(from artifacts, further to the “proclaimed values” to the comprehension of “basic concepts”) (Shejn, 2002).

These models emphasize the importance of exploring culture as a set of components, with the comprehension of these components possible by studying both the external manifestations of the culture as well as its foundations.

Culture is a construct that includes four main levels: individual, organizational, national and global. It is important to clearly indicate the level of analysis when it comes to culture, rather than assuming that the cultural aspects at one level will be universally applicable to all other levels. For example, G. Hofstede believed that work-related values (as a measure of culture) should be assessed at the national level, since the same values may not be applicable in an individual context (Hofstede, 1980).

Therefore, it would be false to declare that every Chinese student is a collectivist because he or she is from Chinese culture. The fact is that a culture and an individual from that culture are two different concepts (Kwantes, Glazer, 2017). This can be illustrated by other research models of culture (Schwartz, 1999), in which the number of socio-cultural dimensions varies according to the level of assessment (global, national, organizational or individual level).

A multi-level culture model defines the boundaries within which bottom-up processes can become higher-level constructs. The relationship between top-down and bottom-up processes suggests that the macro level of culture influences the micro level of individual self-assessment (Erez, Gati, 2004). Thus, the structural-system approach allows culture to be presented as a complex structural formation consisting of various components (knowledge, notions, ideas, ideals, beliefs, values, norms, symbols, and patterns). During intercultural communication, the subject understands a different culture based on his or her initial ideas about the external level of said culture. Thus, international students attending universities at the beginning stage of intercultural communication first make contact with the socio-cultural system receiving them; in this case it is Russian culture and society. Language barriers play an important role for universities seeking to adapt their strategies (Goken, 2017). The survey conducted by the authors touches on this: To the question “When reading textbooks and books in Russian, what do you usually use?” 51.14 % of international students chose the answer “electronic assistant”, 8.52 % – “dictionary”, 5.11 % asked for help from friends, and 35.23 % read fluently. It should be noted that, as a rule, knowledge of Russian language among international students is not yet connected with a deep understanding of hidden “background knowledge”.

It should be noted here that the ability to overcome various barriers (language, psychological, social, behavioral, etc.) during intercultural communication is determined by the degree of differences between the subjects.

The empirical studies confirm that lower degree of cultural differences contributes to more effective communications. The result of students’ intercultural competencies sociological study (Dagbaeva et al., 2020) shows, for example, that positive correlation is observed in the construction of social ties between Russian and Mongolian students rather than Chinese because of the cultural closeness of Mongolian and Buryatian cultures (Republic of Buryatia, region of the Russian Federation).

To overcome communication barriers, subjects should expand and develop cross-cultural competence. At the same time, cross-cultural competence implies the development of knowledge and understanding of someone else's culture over time, with the goal of eventually reaching a profound level. Without a doubt, knowledge of only the verbal language of the host society is not enough to “immerse” one’s self in the new culture.

In this respect, the university administration and educators play an important role, and must themselves have cross-cultural competence as it pertains to the peculiarities of communication with international students, so as to most effectively address difficulties and problems should they arise. Attention should be paid to the results from the survey questions, “Which type of adaptation was the most difficult for you?” 48 % of respondents chose “academic” (new language of study, university requirements and volume of study load); 24 % – “physiological” (life and climate), and 28 % – “socio-cultural” (change of living conditions and quality of life, new traditions, customs, rules of conduct and laws). Interestingly, 15 % of international students surveyed have difficulty understanding the non-verbal language of Russians, and 36 % admitted that they sometimes have difficulty interpreting non-verbal behavior in Russians.



Therefore, the issue of studying both national and cultural specifics as they relate to a culture's mentality is an important one and demands the attention of higher education institutes who host international students. In this regard, the most fruitful and promising method is the comparative analysis of differences between students from different cultures, as well as the comparative analysis of different national mentality programs (in G. Hofstede's terminology) and the study of their "junction", which will make it possible to identify the commonalities and differences between the cultures in question.

To achieve the goals and objectives of this study, it is necessary to place international students and their cultures into groups. In this section, the authors have chosen the method of cluster analysis.

A cultural cluster is a separate group of nations, which are in close proximity to each other and have similar history, religion, economic development and cultural factors. Clusters are the originally chosen variable, but it is too simplistic to say that all nations in a cluster are the same. Moreover, within each nation, individuals differ to the extent that they accept the dominant cultural way of doing things. E. Hall (1976), G. Hofstede (1980), R.D. Lewis (1999), R. Inglehart (2018), A. Shoham & I. Alon (2010) and others have made a significant contribution to the development of cluster analysis in scientific literature. Thus, the researchers from the "GLOBLE" project, which summarized data from 62 countries, concluded that the clusters are unique regional clusters representing different groups: English, Northern Europe, German Europe, Latin Europe, Eastern Europe, Latin America, Middle East, Sub-Saharan Africa, South Asia, Confucian Asia (Chhokar et al., 2007).

While many researchers focus on the differences between cultures, in the context of our study we have identified the inevitability of the formation of the upper tier of global culture as a consequence of human development, as a kind of urgent "response" to the challenges of globalization. Therefore, we consider it necessary to take into account that if the vector of development of modern cultures is oriented to the values of "survival" (in R. Inglehart's terminology) in the conditions of increasing threat of world disasters of different nature – from ecology to pandemic, then the attention of scientists should be concentrated on the search of universally significant ideals, principles, norms and values. In other words, a humanistic approach should be developed that, in the typology of cultures, focuses not only on the fundamental differences in the cultures and mentalities of students at higher education institutions, but also on the problem of their adaptation to the foreign cultural social environment of their host country. Hence, the scientific relevance of helping foreigners adapt better. Here it is possible to choose two directions – either to concentrate our attention on the process by which international students adapt to the large differences of Russian culture or to go the other way – to look for forms and ways of adapting in the context of forming the upper "tier" of world culture as an area of generally significant ideas, ideals, knowledge, norms and values.

### **3.2. The results of survey**

We have placed international students studying at Russian universities in a variety of clusters, based on the results of the authors' survey. Thus, the results for the question: "What civilization do you consider yourself to be a part of?" indicate that international students have an awareness of their cultural and civilization identity. Only slightly more than 6 % found it difficult to choose a cultural identity. This confirms the hypothesis of the study regarding the need to choose two fundamental criteria for the classification of cultures – geographical feature and mentality. The importance of geographical criteria became apparent in the responses to the question: "I identify myself as:" with Chinese receiving 23.53 % of responses, followed by Central Asian (11.27 %); Southeast Asian (5.39 %); North African and Middle Eastern (4.90 %); Central African (2.94 %); South African (5.88 %), and European (9.80 %). Undoubtedly, the mental feature (commonality of historical and cultural ties) and the language of identification appeared when choosing the identification link with the English-speaking cultures – 4.4%, French – 6.86 %, Spanish – 4.90 %, Russian – 13.73 %, as here not only the language, but also a certain worldview is evident in the culture of these countries, united in a broader context – the civilization type. The following data should not be disregarded. For the question "What symbol do you primarily associate Russia with (choose no more than 3 variants)" the following results were obtained: 53.43 % of respondents named Russian winter as the main symbol of Russia. This confirms the authors' hypothesis that it is necessary to choose a geographical criteria for typologizing cultures,

as the geographical location of the country of international students is closely related to its climatic characteristics. Moreover, 60 % of respondents answered the question “It is difficult to live in Russia because:” with “Long winters and few sunny days per year” (Figure 1).

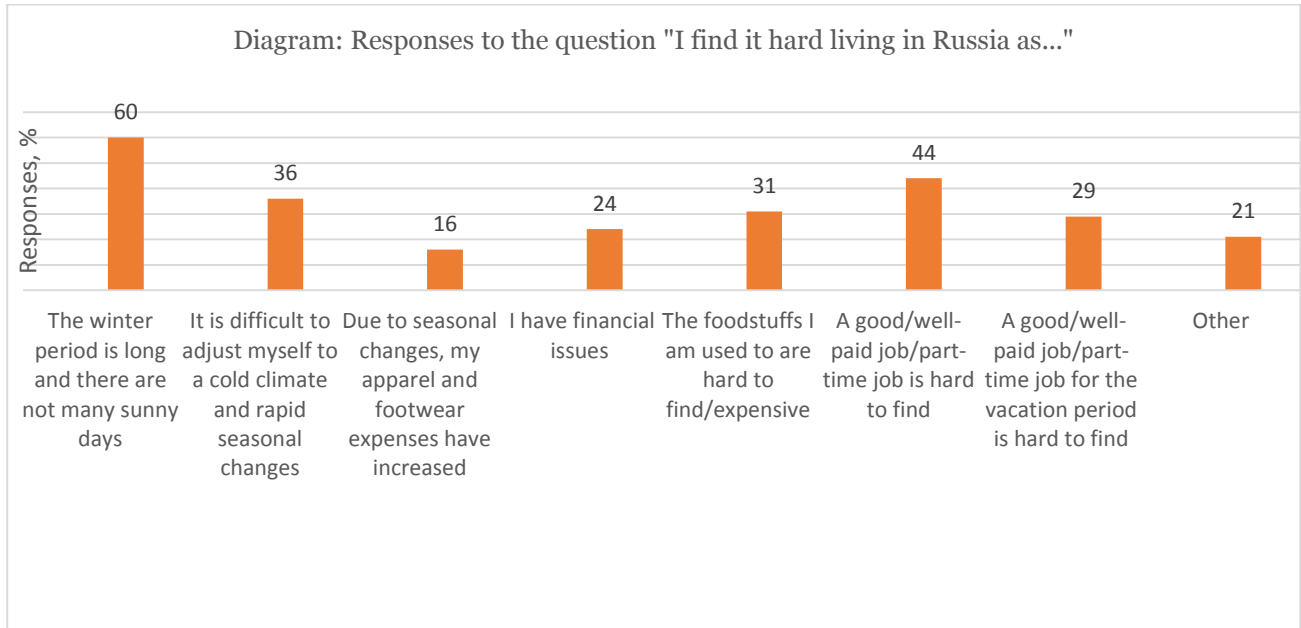


Fig. 1. Survey results (1)

There were 158 responses to the question “What helps you to reach an understanding with other people? (choose no more than 2 answer)”. The overwhelming majority of respondents answered “language” – 80 %, “common region of residence” (part of the continent, for example, South-West Asia, North Africa, CIS countries, etc.) – 14 %, “common religion” – 5 %, “nationality” – 11 %, and “common culture” – 25 % (Figure 2).

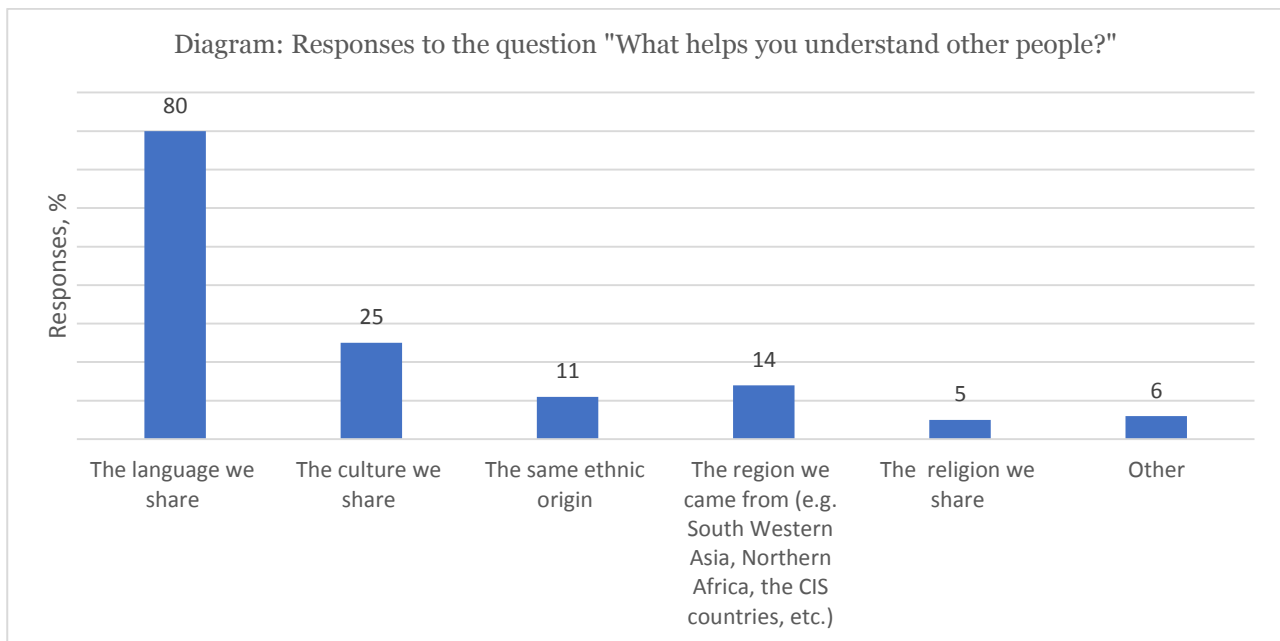


Fig. 2. Survey results (2)

It is known that religion is one of the prevailing factors in the classification of countries and cultures. It is noteworthy that the majority of Chinese students consider themselves atheists, which is due to the policy of freedom of religion pursued by the People's Republic of China. Evidence that religion plays an important role in identifying students can be found in the following survey data: for example, 9.80 % of the students identified as Muslim, 17 % Orthodox, 4 % Catholic, 2 % Protestants, 0.5 % Confucian, 25 % Buddhist, and 10 % Jewish. It is noteworthy that 186 people were interviewed, but 204 responses were received. This indicates that a number of students who have cross-cultural influences from other religions. It is important to emphasize that the religious factor should be taken into account when implementing plans to aid international students in their adaptation to the host country's educational environment.

It is interesting to compare the student's choice of the language when receiving professional information, as seen in the answers to the survey question regarding international student's speeches during the seminar and practical classes. It is known that the language, culture and mentality are inextricably linked; therefore, when adapting teaching, it is necessary to form cross-cultural competence by introducing didactic units on Russian history, culture, politics, and traditions into the program. It is recommended to use digital communication as a means to expand and deepen intercultural communication (Braslauskas, 2020).

The result of the authors' survey showed that only 47 % of respondents rarely experienced language difficulties when speaking in class. Almost 40 % of international students rarely speak during class as they have difficulty expressing themselves in Russian, and 8 % do not even understand the questions. According to the survey results, 51 % of respondents use electronic translators for academic and household communications, and only 35 % are fluent in reading information in Russian. Given the repeatedly noted language barrier, the only effective way to reduce the gap in the quantity and quality of professional information received by Russian and international students may be to develop teaching and learning materials specifically adapted for foreigners.

The geography, ethno-cultural, linguistic, and religious diversity of countries is so great that it is extremely difficult to group students into clusters. Therefore, the geographic location, language, and religion serve as barriers to intercultural communication, and as starting points for the following classification groups (Tables 1-3).

Table 1 shows the results of the culture cluster analysis based on geographical criteria

**Table 1.** Classification of countries by geographical criteria as a factor affecting cultural characteristics

| Nº | Cluster name    | Countries   |
|----|-----------------|---|
| 1  | Western Europe  | United Kingdom, Denmark, Germany, Ireland, Spain, Italy, Netherlands, France, Greece        |
|    | Eastern Europe  | Bulgaria, Latvia, Lithuania, Poland, Serbia, Croatia, Montenegro, Estonia, Belarus, Moldova |
| 2  | Near East       | Algeria, Egypt, Morocco, Iran, Syria, Somalia, Turkey, Israel                               |
| 3  | Caucuses        | Abkhazia, Azerbaijan, Armenia, Georgia  |
| 4  | Africa          | Congo, Cameroon, Zambia, Botswana, Benin, Nigeria, Niger                                    |
| 5  | South-East Asia | Afghanistan, Bangladesh, China, Vietnam, South Korea, India                                 |
| 6  | Central Asia    | Kazakhstan, Kyrgyzstan, Mongolia, Tajikistan, Uzbekistan                                    |
| 7  | North America   | USA, Canada, Mexico   |
| 8  | South America   | Argentina, Venezuela, Colombia, Peru, Ecuador   |

Most commonly geographic location significantly influences the choice of host country for higher education. Countries in close proximity to each other have close economic and trade contacts, as well as a history of traditions and socio-cultural exchange.

Table 2 shows the results of the culture cluster analysis based on language criteria

**Table 2.** Classification of countries by language as a factor affecting cultural characteristics

| Nº | Cluster name        | Countries   |
|----|---------------------|---|
| 1  | English language    | United Kingdom, USA, Bangladesh, India, Nigeria, Zambia, Botswana |
| 2  | French language     | France, Congo, Djibouti   |
| 3  | Spanish language    | Spain, Argentina, Mexico, Venezuela, Colombia, Peru, Ecuador      |
| 4. | Arabic language     | Algeria, Morocco, Egypt, Syria                                    |
| 5. | Chinese languages   | China   |
| 6. | Indian languages    | India   |
| 7. | Vietnamese language | Vietnam   |
| 8. | Korean language     | South Korea   |

Table 2 groups countries by language, which can and should be further expanded. It should be noted here that, although language leaves a mark on the worldview of its speakers, it is still recognized as the main barrier to cross-cultural communication. Meanwhile, the development of innovative information and communication technologies leads to a decrease in the impact of this barrier (Ten, 2019). The fact that knowledge of foreign languages is essential for the successful career of future graduates also plays a big role in minimizing the language barrier. Due to the fact that English and Chinese are the leading languages in business communications, the introduction of these languages to Russian students will help to develop a wider cross-cultural language competence.

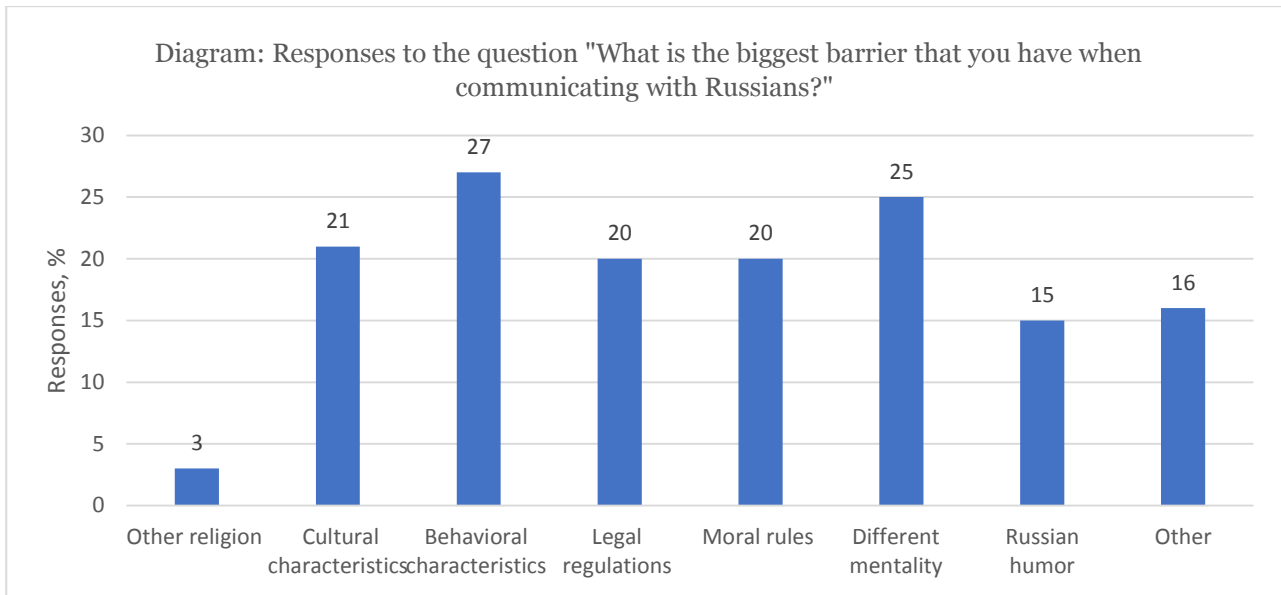
Table 3 demonstrates the results of the culture cluster analysis based on religion criteria.

**Table 3.** Classification of countries by religion as a factor affecting cultural characteristics

| Nº | Cluster name       | Countries  |
|----|--------------------|--|
| 1  | Orthodox           | Russia, Belarus, Serbia, Greece, and others                    |
| 2  | Western Christian  | France, Italy, Germany, USA, United Kingdom, Poland and others |
| 3  | Islam              | Iran, Iraq, Jordan, Syria, Algeria, Egypt, and others          |
| 4  | Buddhist           | Mongolia, Laos, India, China, and others                       |
| 5  | Atheist            | China  |
| 6  | National Religions | Israel, India, Japan, and others                               |

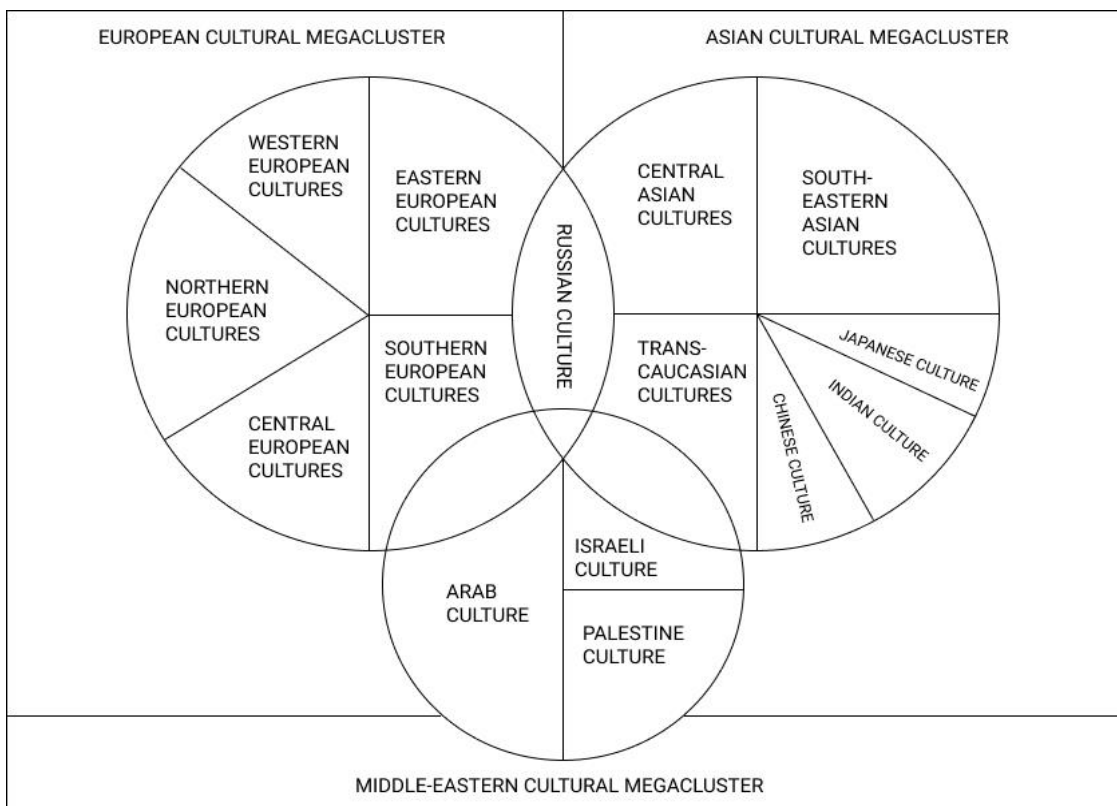
The criteria of classifying cultures by mentality has been correctly identified, indicating that the main barriers are features of culture (customs, traditions, holidays, etc.) – 21 %, moral norms (other notions of good and evil, right and wrong behavior) – 20 %, mentality peculiarities – 25 %, Russian humor – 15 %; and legal norms (laws, rules of public behavior in the city and university, transport, museum, etc.) – 20 %. The fact that almost 27 % of respondents consider non-verbal behavior a significant barrier indicates the need to include a section on non-verbal aspects of culture in the educational programs of students (Figure 3).





**Fig. 3.** Survey results (3)

It is important to mention that Russia due to its unique geographical location as well as intensive centuries-old contacts and ties with the cultures of Europe, Asia and the Middle East could be defined as a distinctive cultural cluster itself. The Russian mentality could be characterized by a high degree of tolerance, respect for cultural and religious diversity, and a high receptibility of cultural adoptions and this should be considered as additional competitive advantage in terms of attracting international students. It is represented by [Figure 4](#).



**Fig. 4.** Culture clusters convergence

It is interesting to study the analysis of respondents' answers to the question "What kind of food do you usually eat in Russia?", as it shows that the majority of respondents prefer "traditional food of their country" (33.33 %), while 24.51 % eat fast food, and 28.92 % eat Russian national cuisine.

In this regard, educational institutions should be encouraged to make adjustments to student cafeteria menus, as is the practice in a number of leading universities, which focus on a high degree of internationalization of their activities. Many students who identify as Confucian or Buddhist (25.49 % of respondents) are vegetarians. The potential growth of Muslim students points to the need to take Islamic norms into account for the cafeteria and buffet menus.

Certainly, the identified clusters do not completely solve the problem of clustering international students by culture, but the conclusions and results obtained allow us to make a number of practical recommendations for higher education. In order to help international students adapt to the host socio-cultural and educational environment of higher education institutions, ideally each higher education institution would choose a different type of strategy – global, global-local or local to facilitate the international student's adaptation. Factors such as the number of international students, their level of proficiency in English or the language of the host country, as well as their religious life, culinary preferences, morals, and etiquette should be considered.

### **3.3. Regression analysis**

In order to develop practical recommendations regarding the adaptation of international students to the socio-cultural and educational space of their host country, the authors developed indicators for features of international students' perceptions regarding the learning and living processes necessary for staying in Russia, measured by the following degrees: socio-cultural adaptation, learning adaptation, and the degree of external locus of control. These indicated low levels of self-discipline and an orientation towards social stimuli and external motivation. Regression dependencies were revealed based on the analysis of international student respondents' answers identifying problems related to their adaptation to legal, religious, and socio-cultural norms and traditions of Russian society, peculiarities of the organization of educational process in Russian universities, and domestic issues.

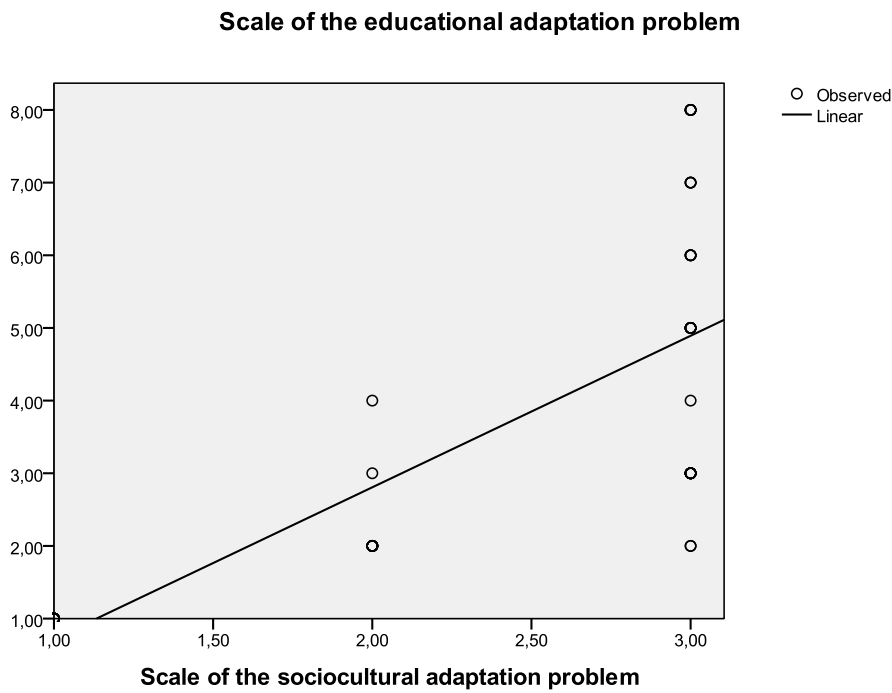
Figure 5 shows a linear regression establishing the dependence of international students' learning adaptation on the level of their socio-cultural adaptation.

The location of the linear regression indicates the direct influence of the socio-cultural adaptation level on the international students' learning adaptation. A quite significant level of connectivity between the mentioned attributes is confirmed by Pearson correlation coefficient, equal to 0.747. Thus, the higher the adaptability of international students to moral and legal norms of the Russian society, the higher their academic performance and adaptability to the learning system.

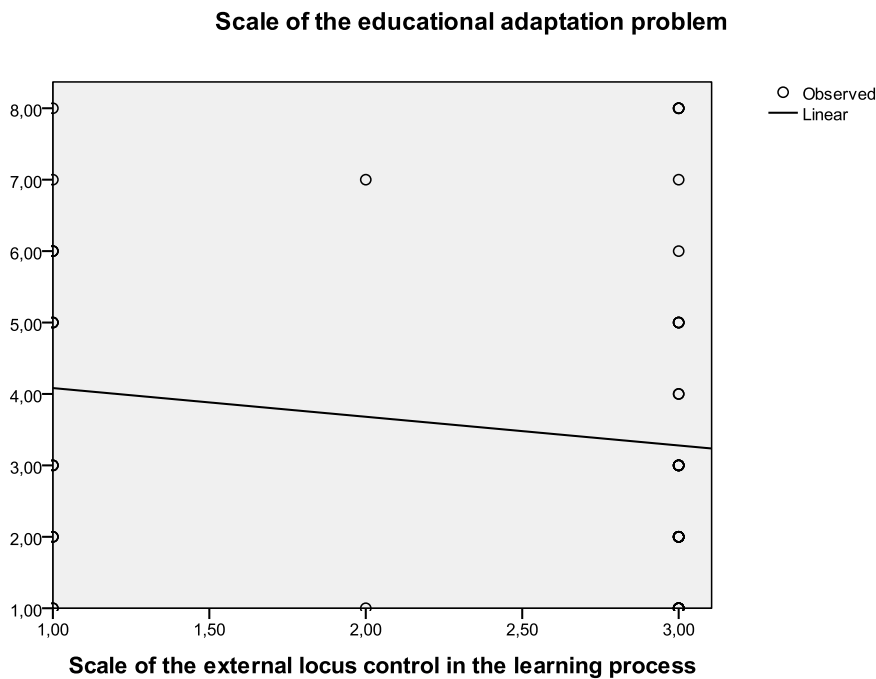
The linear regression shown in Figure 5 allows us to hypothesize the development of such dependent variables as international students' learning adaptation on the basis of changes in the values of independent variable – their socio-cultural adaptation. This forecast can be formulated via a basic probability scenario, which establishes the dependence of changes in one attribute on the dynamics of changes in another attribute. Thus, the increase of academic performance and learning adaptability of international students is possible and most probable when universities create favorable conditions for socio-cultural integration, and internalization of Russian traditions, values, and norms.

Figure 6 shows a linear regression, reflecting the dependence of international students' learning adaptation on the degree of their external locus of control in the learning process.

According to the obtained data of the linear regression, there is an inverse relationship between the attributes under consideration. It means that the more expressed the external locus of control in international students, the lower their level of learning adaptation. The Pearson correlation coefficient is -0.181.



**Fig. 5.** Linear regression, establishing the dependence of international students' learning adaptation on the level of their socio-cultural adaptation



**Fig. 6.** Linear regression establishing the dependence international student's learning adaption on the degree of their external locus of control in t he learning process\*

\* The degree of expression of the external locus of control in the learning process in international students was measured on the following scale: "1 to 1.5" on the horizontal axis means the predominance of internal

The applied aspect of the identified dependence indicates the need to create conditions for the international students to adapt their learning, allowing them to exercise their personal responsibility. They must also be able to reject the idea of failure as inadequate and excessive requirements for mastering professional competencies, as opposed to a consequence of their low level of preparation.

The results of the regression analysis conducted by the authors confirm the need to develop and implement an intensive orientation program (briefing) for newly arrived international students at the educational organization. The intensive orientation program for newly arriving international students should be organized for all students, regardless of the forms of their admission and training, regardless of the country of arrival. It is aimed at helping an international student adapt to the initial stage of studying in a Russian university. The model program, in the authors' opinion, should include the following main blocks:

1) Information about the country and city of residence during study (geographic, climate, and ethno-cultural information, regulatory framework governing the rules and regulations of training and migration registration of foreigners, including visas; the rules of settling into a dormitory; medical care; social benefits, etc.).

2) University life (student dress code and rules of attending classes; system of university progress control; rules of living in a dorm; academic calendar; student council and self-government bodies of international students; library and information resources; sports and healthy lifestyle; food at the university; tuition and dormitory payments).

3) Useful contacts and links (It seems useful to have a check-list for international students after their arrival in Russia, to help them keep track of all the information).

#### **4. Conclusion**

The multilevel model of culture will allow us to form a model of intercultural communication, where subjects are able to interact at different levels. Within this model it is possible to develop an individual approach to training and adaptation of international students in the context of the receiving foreign national culture. This approach is in turn integrated into the concept of globalization, and the effectiveness of student's communication is possible through the introduction and use of innovative information and communication technologies. With regard to the adaptation of international students to the host university's educational environment, this means not only the use of innovative educational technologies (organizational level of culture), but also the development of an individual creative program (Braslauskas, 2020) for the student (individual level) with their maximum involvement in the process of cognition of the host culture (national level). A systematic approach is important for the adaptation of international students in the environment of the host university, as this involves students not only in the scientific and educational process, but also in the process of deep acquaintance with the features of the culture of the host society.

#### **5. Recommendations**

Taking into account the need to introduce the latest methods and technologies of adapted education in a foreign cultural environment into the practice of teaching international students, the most promising and effective criteria for classification is the geographical criteria. We have found that it is geographical, historical, and political factors that most significantly affect international student's choice of receiving education in Moscow region in particular and in Russia in general. Cultural and ideological criteria were also helpful in identifying the peculiarities of the mentality of international students (in this case, mentality is interpreted as the worldview,

---

locus of control in the learning process over external (failure is perceived as a result of one's own unpreparedness, insufficient efforts to master professional competences); "from 1,5 to 2,5" on the horizontal axis means the balance between the internal and external locus of control in the learning process (failure is perceived as the result of mutual influence of one's own unpreparedness, insufficient efforts to master professional competences and partly inadequate and excessive requirements of the teaching staff for mastering professional competences) "from 2.5 to 3" on the horizontal axis means the dominance of external locus of control in the learning process (failure to succeed is perceived as due to excessive requirements of the university for mastering professional competencies). The scale for measuring the expression of the problem of international students' ability to adapt their learning is shown in the footnote on pp. 2 and 3.

assessment of the surrounding reality by a certain socio-national community, formed under the influence of religion, socio-political history, spiritual practices, traditions and customs).

Final recommendation: when developing a strategy to attract international students to post-Soviet countries, universities should be guided by geography, since, as a rule, countries with common borders or geographical proximity often have a certain degree of cultural proximity. Even if post-Soviet cultures have increased the degree of cultural distance during the development of post-Soviet history, historical traditions as well as economic and trade activities mean that they often find themselves obliged to reestablish international cooperation that was lost in recent decades. As the practice of economic integration in the context of globalization shows, countries are forced to seek opportunities to exchange or attract resources, either because of their limited resources or because of the development of trends that bring the world economies closer and make them more interdependent. Here, too, the cultural and philosophical criteria is being updated. According to the results of a sociological survey conducted in this study, 20 % of respondents have problems with communication and understanding other students and 16 % of respondents have problems with teachers, while 20 % of respondents believe that the problems are easily solved. This indicates that Russians are fairly tolerant of other cultures and find ways to communicate effectively with people from other cultures quite easily.

The most effective method of overcoming barriers and cultural shock for international students is forming intercultural competencies and flexible skills of both the foreign citizens as well as Russian students and, most importantly, university staff, including scientific, pedagogical and administrative staff. For this purpose, it is important for educational organizations to use culturally centered methods to emphasize: communicating with people from different cultures, understanding the characteristics of one's own culture and language, and being able to adapt when meeting a different culture, not only linguistically, but also to the non-linguistic norms of behavior.

Scope of application of the results: international, educational, scientific, project activities of Russian educational organizations.

Recommendations for the implementation of results: creation of a full-fledged environment for international students within the framework of intercultural adaptation ecosystem of an educational organization.

Cost-effectiveness: improving intercultural competencies and competitive advantages of Russian educational organizations for exporting education.

The practical importance of the study is due to the need for a thorough systemic training on intercultural communication and cross-cultural competencies for students in foreign socio-cultural environments.

## References

- Belyakov, Krasnova, 2016 – Belyakov, S.A., Krasnova, G.A. (2016). Export of higher education: perspectives in Russia and worldwide. *University management: practice and analysis*. 106(6): 26-34.
- Braslauskas, 2020 – Braslauskas (2020). Effective creative intercultural communication in the context of business interaction: theoretical and practical aspects. *Creativity studies*. 13(1): 199-215.
- Chhokar et al. – Chhokar, J.S., Brodbeck, F.C., House, R.J. (2007). Culture and leadership across the world: the GLOBE book of in-depth studies of 25 societies. London: Routledge. 1200 p.
- Dagbaeva, 2020 – Dagbaeva, N.Zh., Darmaeva, S.N., Samoshkina, J.S., Tzybenova, S.G. Components of Modern Students' Intercultural Competence: Comparative Analysis. *European Journal of Contemporary Education*. 9(1): 19-28.
- Erez, Gati, 2004 – Erez, M., Gati, E. (2004). A dynamic, multi-level model of culture: from the micro level of the individual to the macro level of a global culture. *Applied Psychology: An International Review*. 53(4): 583-598.
- Garrido et al., 2019 – Garrido, R., Garcia-Ramirez, M., Balcazar, F.E. (2019). Moving towards Community Cultural Competence. *International Journal of Intercultural Relations*. 73: 89-101. DOI: <https://doi.org/10.1016/j.ijintrel.2019.09.002>
- Goken, 2017 – Goken, G. (2017). Clash of civilization and the impact of cultural differences on trade. *Journal of development economics*. 127: 449-458.
- Hall, 1976. – Hall, E.T. (1976). Beyond culture. N.-Y.: Anchor press. 256 p.
- Hofstede, 1980 – Hofstede, G. (1980). Culture's Consequences: International Differences in Work-Related Values. Beverly Hills. 328 p.



[Inglehart, 2018](#) – *Inglehart, R.F.* (2018). Cultural evolution: people's motivations are changing and reshaping the world. N.-Y.: Cambridge University Press.

[Lewis, 1999](#) – *Lewis, R.D.* (1999). Delovyye kul'tury v mezhdunarodnom biznese. Ot stolknoveniya k vzaimoponimaniyu [Business cultures in international business. From collision to understanding]. Per. s angl. T.A. Nestika. Moscow: Delo. 439 p. [in Russian]

[Li, 2020](#) – *Li, M.* (2020). An examination of two major constructs of cross-cultural competence: cultural intelligence and intercultural competence. *Personality and individual differences*. 164. DOI: <https://doi.org/10.1016/j.paid.2020.110105>

[Kwantes, Glazer, 2017](#) – *Kwantes, C.T., Glazer, S.* (2017). Culture, organizations, and work: Clarifying concepts. NY: Springer [Electronic resource]. URL: <https://www.springer.com/gp/book/9783319476612#otherversion=9783319476629>

[Oberg, 1960](#) – *Oberg, K.* (1960). Culture Shock: adjustment to New Cultural Environments. *Practical Anthropology*. 7: 177-182.

[Schwartz, 1999](#) – *Schwartz, S.H.* (1999). A theory of cultural values and some implications for work. *Applied Psychology: An International Review*. 48(1): 23-47.

[Selfridge, Sokolik, 1975](#) – *Selfridge, R.J., Sokolik, S.L.* (1975). A comprehensive view of organizational development. *MSU Business Topics*. 23(1): 46-61.

[Shejn, 2002](#) – *Shejn, E.X.* (2002). Organizacionnaya kul'tura i liderstvo [Organizational culture and leadership]. Per. s angl. pod red. V.A. Spivaka. SPb: Piter. [in Russian]

[Shoham, Alon, 2010](#) – *Shoham, A., Alon, I.* (2010) Changing cultural clusters: a research note. *Business and Globalisation*. 5(3): 328-342.

[Ten, 2019](#). – *Ten Y.P.* (2019). The digitalization of economy as the “response” to the global change. *Journal of Hygienic Engineering and Design*. 29: 66-72.