EVALUATION OF THE NECESSARY LEVEL OF INTERCULTURAL COMPETENCES BASED ON THE ANALYSIS OF THE DIFFERENCE OF CULTURES
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An analysis of the constituents of cultures was carried out to determine the relative importance of intercultural competence in the formation of the international curriculum. The constituent parts of the ethnocultural civilization, the religious group, the level of education, democracy, foreign language proficiency were taken into consideration. A multifunctional semantic analysis was conducted, which allowed to group cultures according to the level of intercultural differences. The paper introduces coefficients of paired intercultural differences as well as the total intercultural coefficient that characterizes the degree of intercultural difference between the two countries or cultures. A study of intercultural differences was made for countries with different religious, civilizational preferences, democratic and educational levels. A relatively small average level of intercultural difference for a number of countries (19.4%) allows realizing the processes of creating intercultural competence on a global scale without significantly changing the curriculum. While developing international curricula, it should be borne in mind that approximately 20% of credit time must be devoted to the formation of intercultural competences.

Keywords: intercultural competence, international curriculum, ethnocultural civilization, intercultural differences, credit time.

Рябчикова К.М. «Оцінка необхідного рівня міжкультурної компетентності на основі аналізу відмінності культур»
Проведено аналіз складових культури з метою визначення питомої ваги міжкультурної компетентності при формуванні інтернаціонального навчального плану. Враховано складові принадлежності до етнокультурної цивілізації, релігійної групи, рівня освіти, демократії, володіння іноземною мовою. Проведено багатофункціональний семантичний аналіз, який дозволяє згрупувати культури за рівнем міжкультурних відмінностей. Введено коефіцієнти парних міжкультурних відмінностей, а також сумарний міжкультурний коефіцієнт, який характеризує ступінь міжкультурної відмінності між двома країнами або культурами. Проведено дослідження міжкультурних відмінностей для країн із різними релігійними, цивілізаційними перевагами, демократичними і освітніми рівнями. Порівняно невеликий середній рівень міжкультурної відмінності для ряду країн (19,4%) дозволяє реально впроваджувати процеси формування міжкультурної компетентності в глобальному масштабі без внесення суттєвих змін до робочих планів. При розробці інтернаціональних навчальних планів необхідно враховувати, що приблизно 20% кредитного часу має бути присвячено формуванню міжкультурних компетентностей.

Ключові слова: міжкультурна компетентність, інтернаціональний навчальний план, етнокультурна цивілізація, міжкультурні відмінності, кредитний час.

Рябчикова Е.Н. «Оцінка необходимого уровня межкультурной компетентности на основе анализа различия культур»
Проведен анализ составляющих культуры с целью определения удельного веса межкультурной компетентности при формировании интернационального учебного плана. Учтены составляющие принадлежности к этнокультурной цивилизации, религиозной группе, уровню образования, демократии, владения иностранным языком. Проведен многофункциональный семантический анализ, который позволил сгруппировать культуры по уровню межкультурных различий. Введены коэффициенты парных межкультурных различий, а также суммарный межкультурный коэффициент, который характеризует степень межкультурного различия между двумя странами или культурами. Проведено исследование межкультурных различий для стран с различными религиозными, цивилизационными предпочтениями, демократическими и образовательными уровнями. Сравнительно небольшой средний уровень межкультурного различия для ряду стран (19,4%)
One of the main means of developing intercultural competencies in existing sources is the development of international curricula. In a number of cases, such attempts are made through critical international studies in the field of culture. The main purpose of these programs is a positive understanding of intercultural differences and competencies. At the same time, such competencies should be considered, not as abstract universal concepts, but rather take into account the cultural orientation of curricula and programs [6].

Curricula should take into account the growing demands of employers, which in some cases determine intercultural competence among the most important. This predetermines the need for curriculum correction, the introduction of individual subjects devoted to the formation of intercultural competencies, the allocation of sections in individual academic disciplines, the increase in the requirements for the formation of communication competencies. Such courses, programs and sections can be considered as an effective means of developing the intercultural competence of students. At the same time, it is desirable to include online education, virtual means, means of interethnic communication in these courses [7].

The modern approach to the formation of the curriculum provides for it, as a strategy and tactics for forming the necessary professional competence of a specialist. Competence in this case are understood, as the totality of knowledge, skills, communications and autonomy for performing certain tasks. The process of formation of the curriculum can be considered as an iterative process of successive treatment to employers with correction of necessary courses, structure and content of the education process [8]. This raises the question of the level and volume of the material for the formation of a separate professional competence. The place and volume of key competencies, such as design, organizational, technological, is determined by the necessary requirements for the performance of certain works.

In this sense, intercultural competence is distinguished by some uncertainty and dependence on the place of its formation.
In the process of accounting for cultural characteristics and the formation of an intercultural curriculum, one should keep in mind the differences in the concept of culture in different countries, which is considered, for example, in [9].

In [10], problems of self-identity of a person in the process of intercultural learning are considered. At the same time, the criteria of identity may include the place of origin, skin color, political orientation, gender, religion, level of education.

The problem, in our opinion, is the determination of the proportion of intercultural competencies in the total volume of training of specialists. At the same time, the question acquires special relevance for humanitarian and related professions - pedagogy, culture, art.

**The purpose of this work** is to justify the relative importance of the intercultural component of a specialist's competence for his successful work in conditions of other cultures.

**Methodology.**

Let us single out the main components of the culture of a single community.

The most significant difference of culture, in the opinion of many experts, is belonging to a global ethno-cultural civilization.

In the modern zoning, proposed by A. Toynbee, S. Huntington [11, 12], 9 modern civilizations are considered (Fig. 1).

- East civilization (E)
- Muslim civilization (M)
- Orthodox civilization (O)
- China civilization (Ch)
- Indian civilization (I)
- Buddhist civilization
- Japan civilization (Jp)
- Latin-American civilization (La)
- African civilization (Af)

Consider the distinctive features of different civilizations [12-15].

Western civilization is characterized by intensive development. On the personal level, it is distinguished by the ideology of individualism. In the social plan, the priority of the individual, his interests is highlighted. Perception of the world is rational. In practical matters, freedom from religious postulates is generally observed. Public morality is oriented toward Christian values, as an ideal, despite practical internationalism.

The Arab Muslim civilization as a rule is oriented towards the dogma of the Koran. The ethics of Islam is largely determined by fatalism - a belief in predestination, which is extremely deepened in the mass consciousness. The Muslim culture combines the material and spiritual aspects of life. Moderation in life is a distinctive feature of Muslims. In terms of openness, Islamic civilization has the lowest level. The Muslim way of life is not only traditional, but also valuable.

A distinctive features of the Orthodox civilization are, in particular, such forms of organization as the community and the artel. The next ideal of Orthodox civilization is the state, strong central authority and strong local self-government. Although Russia can be considered the center of Orthodox civilization, it is adjoined by some other countries. In the aftermath of time, there is a noticeable drift of some countries from the Orthodox to the Western civilization.

In Chinese civilization, determining is the view of the world, as a system subordinated to the basic laws. Such laws are devoted to all objects - the state, people, nature, art. In Chinese practice, there is no insurmountable border between living and nonliving beings. In China, a unique concept
of a single approach to spirituality of the same to a material approach has been developed. It should be noted that most Chinese citizens do not consider themselves to be any kind of religion. Meanwhile, their civilizational differences are quite typical.

The ideas of polytheism and the caste organization of life are characteristic of Indian civilization first of all. In addition, there are many languages in India, so traditionally the language of interethnic communication is English. The Indian civilization is distinguished by the ideas of non-resistance to evil, the possibility of rebirth, moderation in life and in food.

Buddhist civilization arose in opposition to the values of Hinduism. The main importance in Buddhism is the ethical side. A person should follow the right path. At the same time, he must rely primarily on himself. Unlike other cultures, he welcomes the departure from his own personalities to overcome troubles. Buddhism at the same time contradicts caste differences.

The culture and mentality of the Japanese were greatly influenced by the country's isolated territorial position, geographical and climatic features, as well as special natural phenomena, which manifested itself in a peculiar attitude of the Japanese to nature as a living creature. The ability to admire the momentary beauty of nature, as a feature of the national character of the Japanese, has found expression in many arts of Japan.

The culture of Latin America is built on a Christian, mostly Catholic, religion. At the same time, its culture is notable for clannishness and authoritarianism. An important difference is the desire to open ourselves to ourselves through comparison with others.

The basis of African civilization is primarily a harmonious combination of man and nature, which determines how the psychology of people, art, economics, economic activity. Collectivism in African culture is understood much broader than the community of people. There are included forces of nature, and higher forces.

Belonging of the country or society to a separate ethno-cultural civilization is shown in Table 1. Countries with an undoubted belonging are marked with the number 1. Countries with a transitional ethnocultural identity are marked with a fractional number.

The next component, which largely determines the concept of the culture of society or the country, is the religious preferences of the people [15]. At the same time, it is possible to identify the main religious groups, such as:

- C - Catholic
- P - Protestant
- O - Orthodox
- MS - Muslim Sunnite
- MSH - Muslim Shiite
- B - Buddhist
- I - Hinduism
- F - Folk religions
- A - Atheistic

The first three relate to Christian currents and are close to each other in terms of cultural ideas. Islamic Sunni and Shiite representations are ethnoculturally close, although politically intolerant. The Christian and Muslim religions have historically evolved from one source and in many respects repeat one another, although their cultural differences are significant. Buddhist religion is quite open. Although it is culturally far from Christian and Muslim, at the same time it proclaims tolerance for the perception of God in any view, therefore intercultural relations of other religions and Buddhism are asymmetric, that is, Buddhists are easier to understand the culture of other religions. Hinduism - a religion that has spread in several countries (India, Nepal, partly Sri Lanka, Singapore) on the cultural component is close to Buddhism. Some countries (Vietnam, Sudan, Japan) have large foci of Folk religions. Religious preferences have been finalized in more than 100 countries. Data for some countries as percent of believers are given in Table 1.

Religions have recently become more open, many of them recognize the need for multicultural interaction and the need to form intercultural competencies.
Table 1 Cultural indicators of thirty countries (The analysis was conducted for more than 100 countries)

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It should be noted interest in intercultural education in theological scientific publications. In a number of them, interculturalism is inversely related to religion [16], which allows us to consider the relationship between religious and intercultural education as an iterative process of related formation of competencies.
particular, in the work under consideration, for the analysis of theological beliefs, participants were formed both in terms of social status, existential sensation, and in the formation of intercultural competencies.

The need for and the possibility of increasing intercultural and interreligious competence in the learning process is also noted in [17] that it is possible to raise people's awareness of spiritual practices and enhance intercultural and interreligious competence through training activities.

As noted, intercultural differences of religions are asymmetric. We propose the intensity of intercultural religious differences to be determined using the matrix of intercultural influence of religious preferences, which determines the degree of cultural differences of believers (Table 2).

An important component of culture is the level of education, which to a certain extent levels ethno-cultural differences.

The indicator of the level of education is traditionally considered to be Education indexes (EI).

Its constituent parts are the specific indicators of stay in school.

\[ MYSI = \frac{MYS}{15} \]

where MYS - Average number of completed years of education

\[ EYSI = \frac{EYS}{15} \]

where EYS - Number of years a child of school entrance age can expect to spend in a given level of education.

Common value of Education index is calculated as

\[ EI = \frac{MYSI + EYSI}{2} \]

The Education Indexes (EI) by the methodic of the united nations development program [20] are published annually in [21] and summarized in Table 1.

The level of democratization of society also largely influences on intercultural perception and is traditionally determined using the methodology of the Economist intelligence unit for 167 countries.

Numerical indices of democracy are given in [22] and in connection with it the countries are divided into full democracy; flawed democracy; hybrid regime; and authoritarian regime. This index is also given in Table 1. Please note that in this article we do not analyze regimes, but look for the level of intercultural differences.

The possibilities of intercultural communication are determined, first of all, by the ability to communicate in one language. The traditionally accepted language of interethnic communication is English. The level of its development in society is determined by the EF EPI rating [23], which is also given in the table.

Thus, Table 1 summarizes the main indicators of the cultural characteristics of countries.
Research results. The multifunctionality of cultural characteristics induces the problem of their analysis. One of the methods is the methods of semantic space, in which the analysis of scale estimates for one or several coordinates is performed [24-25]. Most often, a flat analysis is carried out in two coordinates. An example of coordinates (knowledge of English - the level of education) for the countries shown in Table 1 is shown in Fig. 2.

In the case of multifunctional (more than two) indicators, we propose a spatial analysis involving three dimensions (Fig. 3).
Fig. 3 - Three-dimensional analysis of cultural preferences

Fig. 4 - Formation of groups of cultural community in the process of sequential two-dimensional analysis
We draw attention to the fact that the correlation between the level of education and the level of democracy is fulfilled for a fairly narrow class of countries, mainly with the Christian culture (Fig. 5).

This analysis, incidentally, leads to the conclusion (although this is not the goal of the article) about the existence of a three-dimensional correlation—the flow of the Christian religion-democracy index-education index, with the trend line increasing in direction from Orthodox, Protestant, Catholic (Fig. 6).

For multifunctional quantitative analysis of intercultural differences, let’s introduce a number of coefficients of difference between pairs of countries.

Coefficient of religious influence on culture difference of country with number i for country with number j can be calculated in form

$$K_{ri}^{(ij)} = \sum_k \sum_m C_k^{(j)} C_m^{(i)} R_{km},$$

where $R_{km}$ is the percentage of religious followers, $k, m$ can be one of religions (Christian, Buddhist, Muslim, Hinduism).

Coefficient of civilization influence on culture difference of country with number i for country with number j can be calculated in form

$$K_{vi}^{(ij)} = \sum_n \left| V_n^{(i)} - V_n^{(j)} \right| EI_i,$$

$n$ can be one of civilizations (East, Muslim, Orthodox, China, Indian, Buddhist, Latin-American, and African)

$V$ – index of civilization level,
EI – education index
Table 3 - Levels of intercultural differences

<table>
<thead>
<tr>
<th>Country</th>
<th>Austria</th>
<th>Italy</th>
<th>Brazil</th>
<th>Denmark</th>
<th>Zimbabwe</th>
<th>Russia</th>
<th>Ukraine</th>
<th>Ethiopia</th>
<th>Iran</th>
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<th>Thailand</th>
<th>Sri Lanka</th>
<th>Cambodia</th>
<th>China</th>
<th>India</th>
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<td>0.347</td>
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<td>0.192</td>
<td>0.307</td>
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<td>0.319</td>
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</table>

Coefficient of democracy influence on culture difference of country with number i for country with number j

\[ K_{ij}^{d} = \frac{|D_{i}^{(j)} - D_{j}^{(j)}|}{10} \]

Coefficient of communication level influence on culture difference of country with number i for country with number j

\[ K_{ij}^{c} = \frac{|E_{i}^{(i)} - E_{j}^{(j)}|}{100} \]

Total intercultural ratio

\[ K_{ij} = \frac{K_{ij}^{d} + K_{ij}^{c} + K_{ij}^{r} + K_{ij}^{n}}{4} \]

The values of intercultural ratios for some countries are shown in Table 3. Please note that for some countries internal intercultural coefficients are different from zero due to the presence of different cultural groups within the country.

This coefficient characterizes the intercultural difference and determines the requirements for intercultural competencies when preparing work with other countries.

Fig. 7, Fig. 8 shows the average and the maximum required level of intercultural competence for a number of countries.
The average level of intercultural competence determines the necessary intercultural component of training a specialist in planning his studies or working abroad. This level allows for effective intercultural communication.

Fig. 7 - Average level of necessary intercultural competencies for a number of countries

The maximum level of intercultural competence determines a sufficient percentage that guarantees effective intercultural communication.

It is assumed that curricula should devote an appropriate share of time to the formation of intercultural competencies.

Average world value of multicultural competence is 0.194.
This means that the figure of 19.4% should be a unified indicator of intercultural competence in the curriculum.

The maximum level of intercultural competence determines a sufficient percentage, which guarantees effective intercultural communication.

Fig. 8 - Maximum level of necessary intercultural competencies for a number of countries

On the basis of the analysis, a number of conclusions can be drawn.

The analysis made it possible to single out clusters of countries, cultures and communities with different levels of intercultural preferences, which allows to predict the necessary level of intercultural competencies of students when planning their employment or studying in other countries.

As an auxiliary result, it should be noted the relationship between the level of democracy, the level of education and the religious trend in Christian countries.

We note that there is no direct connection between the degree of proficiency in English (communication competence), the level of education and the level of education.

Conclusion.

For the purpose of analyzing intercultural differences, the coefficients of the religious influence on culture, cultural impact on culture, and the total intercultural ratio that characterizes the degree of intercultural difference between the two countries or cultures are introduced. A study was made of intercultural differences for countries with different religious, civilizational preferences, democratic and educational levels.

As an universal characteristic for identifying the necessary intercultural competencies that need to be formed in a given country or culture, the indicators of the average and the maximum necessary intercultural competences are proposed. This indicator characterizes the desired degree of internationalization of curricula for sufficient or mandatory intercultural competence.
A relatively small level of intercultural difference for a number of countries (19.4%) allows realizing the processes of creating intercultural competence on a global scale without significantly changing the work plans.

When developing international curricula, it should be borne in mind that approximately 20% of credit time should be devoted to the formation of intercultural competencies. It should be noted that this time need not be allocated for special intercultural competence, since its formation can be combined with the formation of other professional competencies, for example, during international practices, online conferences, international student projects.

The countries with the highest indices (Brazil, Ukraine, China) have the least level of average international differences. This determines the possibility of the most effective formation of intercultural competencies in these countries, while at the same time increases the possibility of intensive migration from these countries for a reason.

With minor differences, this also applies to the maximum level of intercultural differences. These conclusions characterize the regions and countries with the greatest potential efficiency for intercultural methods and educational approaches.

References

References


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