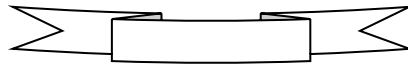


Освітні, педагогічні науки / Educational, Pedagogical Sciences



DOI: 10.20535/2617-5339.2022.10.267234

Tetiana Anoshkova

lecturer, PhD student

National Technical University of Ukraine

“Igor Sikorsky Kyiv Polytechnic Institute”

Kyiv, Ukraine

ORCID ID 0000-0002-9560-942X

taniaanoshkova@gmail.com

GLOBAL COMPETENCE MATRIX

The article analyses the concept of global competence and its main components with its further integration into the curriculum based on the experience of the United States of America. The works of foreign researchers were thoroughly studied using the methods of analysis and synthesis. Based on the definition of global competence there were distinguished three basic components which are knowledge and understanding, skills, attitudes and values. A list of elements which constitute these components were presented. The basic elements which were mentioned include knowledge of one's own history, norms and traditions; understanding of global issues and the connection between local and global social, economic and political processes; foreign language proficiency; analytical and critical thinking skills; intercultural communication and appreciation of cultural differences; and global responsibility which includes valuing human dignity and cultural diversity. Using analysis and systematic approach the matrix of global competence was constructed. Taking into account all the components of the matrix, there were identified its key elements that can be used for educating young specialists at Ukrainian higher educational institutions. Based on the matrix, such components as knowledge and understanding of historical events, intercultural awareness, analytical and critical thinking skills, appreciation of similarities and differences, and global responsibility were derived. The choice was based on the cognitive nature of the competences and their possible assessment. The results obtained can be used to improve the education curriculum in Ukraine.

Keywords: global competence; curriculum; US education; knowledge and understanding; skills; attitudes and values.

1. INTRODUCTION

The main feature of modern society is the constant change and development of all spheres of human life. Economy, industry and culture are under the influence of informatization and globalization. Migration processes caused by economic calamities in the third world countries, wars, or natural disasters have covered the whole world and, as a result, have led to a reassessment of intercultural relations.

Education plays a key role in shaping the society. In recent decades, in many countries of the world and in Ukraine, in particular, the social paradigm has changed from industrial to informational. Requirements for educational program changes appeared under the influence of integration and globalization processes, which provoked the creation of a single information space. Such changes happened so quickly that the existing systems found themselves not ready to meet the requirements of the modern world, what caused the need of improvements in all areas of higher education. An important factor in revising the main educational concepts in the majority of the countries is the gradual blurring of borders and the increased competition in local labour markets, and, as a result, the increasing requirements for the work quality and capacity of young specialists.

In an increasingly interdependent global labour market, university graduates are called upon to interact with colleagues from different cultures. Young professionals must work in cross-cultural teams, they get positions in international companies, and are likely to be forced to work in unpredicted work environments, so they become representatives of today's highly mobile workforce. And the implementation of the global education system is a key concept in the reorganization of higher education institutions in the leading countries of Europe, Asia, and America. Academics, business leaders and government officials around the world are concerned about whether today's graduates entering the labour market are ready to work and compete in a multicultural environment.

Since Ukraine is united with Europe and directly participates in the mentioned above processes, it becomes necessary to form an educational program that would meet the requirements of the modern world. To do that, primarily, it is important to understand the concept of global competence and what components lie at its core in order to make it practical and assessable.

2. THEORETICAL BACKGROUND

The United States as one of the prominent countries in global education started its journey towards global competence in the previous century and had suffered a failure for nearly fifty years. The first attempts of changing American education system were unclear and limited to mastering foreign languages, geography and international relations. An American Council of Education report in 1988 stated that to become globally competent, one must have four or more international college courses and an unspecified ability to speak a foreign language (Hunter, 2004).

New strategies in reorganising American education systems were proposed at a meeting convened by Carnegie Corporation in 2000. "Participants agreed that the framework for a comprehensive global education curriculum must encompass global issues and challenges, global cultures and world areas, and the relationships of the United States with the rest of the world" (Barker, 2000).

In 2012 the United States Department of Education released a report entitled "Succeeding Globally through International Education and Engagement" in which there were outlined four major objectives. The first of the four objectives was to increase the global competencies of all US students. The role of languages, cultural understanding and direct intercultural experiences among the diverse American society was central to the plan outlined in this report. For almost a century numerous scholars and educators (Hunter, 2004; Mansilla & Jackson, 2011; Reimers, 2009; Dearthoff, 2006; DeBoer, 2012), organisations and associations (The Partnership for 21st Century Skills, The Global Competence Task Force, NEA: National Education Association, OECD: Organization for Economic Co-operation and Development, PISA: Programme for International Student Assessment) have contributed to the concept of global competence. It has evolved from intercultural competence into a complex notion with elements of interculturality.

Taking into account the immense experience of the United States, we can upgrade Ukrainian education system which starts its way in the field of globally oriented education. Among Ukrainian scholars there are those who studies global competence directly (Avsheniuk, 2012) and indirectly through transcultural competence (Horibunova, 2014), polycultural competence (Radchenko, 2015) or liberal humanistic culture (Fedorenko, 2017).

Thus, the **purpose** of the article is to analyse the existing studies of the American scholars about the concept of global competence; to distinguish the most commonly mentioned components of global competence; and to present a global competence matrix which can be used in order to improve the global curriculum in Ukrainian education institutions.

3. METHODS

In this paper there were analysed the existing research works connected with the development of global competence concept. After collecting all the information on the topic, it was systematised in a combined list of knowledge, skills, attitudes and values. On the basis of this list a matrix of global competence was proposed. Using analysis and synthesis there were distinguished the key

competences which can be further used to implement global competence into Ukrainian curriculum.

4. RESULTS AND DISCUSSION

4.1. *Global competence components*

As we may learn from numerous scientific studies and educational programs, today the formation of educational goals does not take place at the state level. It goes beyond borders and appears at the international and, even, intercultural levels, where the main priorities and goals in the field of education are declared in international conventions and documents (*Education for International Understanding and Global Competence, 2000; Global Competence Is a 21st Century Imperative, 2010; United States Department of Education international strategy 2012–16: Succeeding globally through international education and engagement, 2012*), and have become strategic goals of the international community. Teaching young professionals how to work in the complex and contradictory environment of the world globalization is the main task of global education.

Before discussing the components of global competence in greater detail it is important to determine a suitable working definition of global competence. Many attempts have been made to define the term, but the definition presented by the National Education Association (NEA) encapsulates the idea of global competence becoming part of the core mission of education.

Thus, according to the NEA “Global competence refers to the acquisition of in-depth knowledge and understanding of international issues, an appreciation of and ability to learn and work with people from diverse linguistic and cultural backgrounds, proficiency in a foreign language, and skills to function productively in an interdependent world community.”

Based on the definition we can distinguish three basic categories which constitute a complex concept of global competence, they are: 1) knowledge, embracing a global dimension into the most of different disciplines, and understandings of global issues and the interaction of different cultures as well; 2) transferable skills; 3) values and attitudes.

The first one is knowledge and understanding which includes a global dimension into the most of different disciplines. In this regard we can distinguish *knowledge and understanding of global issues*, and *intercultural knowledge and understandings*. The first component is responsible for the knowledge and understanding of the world history, socioeconomic and political systems, and global events. It focuses on studying the global issues such as climate change, migration, poverty, famine etc. on both local and international levels (Anoshkova, 2020, p. 7). It provides an awareness of how an individual affects other people or even nations and cultures beyond one’s own borders. It involves the concepts of equality, social and economic justice, peace and conflict solving, citizenship, diversification, intercultural dialogue, and sustainability. The second one deals with the knowledge of one’s own history, cultural norms and traditions as well as the similarities and differences between cultures, attitudes, religions, generations in order to develop the ability to appreciate cultural diversity.

The skill component is very broad and can cover up to 20 specific transferable skills which globally competent graduates have (Willard, n.d.). But we will list the basic ones. Among them are *analytical and critical thinking skills*. In the global context applying critical thinking to a global or intercultural problem requires recognizing one’s own assumptions and acknowledging one’s beliefs and judgements. *Intercultural understanding* helps to communicate ideas effectively with diverse audience. This ability is highlighted within the framework of multicultural education and includes awareness and appreciation of cross-cultural differences, as well as the ability to show tolerance and respect for those differences. *Foreign language proficiency* is, by default, responsible for global component of the curriculum. It is assumed that one of the key categories that characterizes global education is fluency in at least one non-native language. This skill also develops cultural understanding and improves cross-cultural communication skills. *Competitive skills* require high-level thinking skills that enhance creativity and innovation. It is the ability to produce innovative ideas and think creatively, taking into account the economic, social and technological development of the world, in order to compete in the global labor market. (NEA) *Open-mindedness* and interest

in *continuous learning* have a prominent place among the 21st century skills. With a continuous flow of information and rapid technological progress modern students live in the world where they have to be prepared for the professions that do not yet exist and life-long learning is one of the demands at the global labor market. According to the research conducted by Michigan State University (Reimers, 2009), employers include *resourcefulness and adaptability* among the most important skills and abilities that a globally competent graduate should possess. They may overlap with the skills already mentioned above, but they for sure prepare students for work in unpredictable situations and bring the understanding that there is no single solution to the complex problems. And the last but not least is *media literacy*. It has evolved out of digital literacy and became a separate skill in the last fifteen years with the social media not only appearing in our lives but gaining control over it especially for young generations. Being media literate, students are able to evaluate sources of information in terms of their reliability and bias and, as a result, influence the existing media space, becoming competent media users.

The third component of global competence is the attitudes to use one's knowledge, understanding and skills to produce globally competent behavior. Globally competent behaviour requires *an attitude of respect to one's own culture, respect for other cultures, attitude of global mindedness and an attitude of responsibility of one's own actions* (OECD, p. 5). With such attitudes students learn to value *human dignity and cultural diversity*. *Self-confidence, self-reliance, self-respect* as well as respect for others encourage to develop the appreciation of one's own social, cultural and family origin together with the respect for sociocultural peculiarities of others. *Social responsibility* brings the feeling of solidarity and involvement into the defending of social justice at local, international and global levels. *Ecological responsibility* contributes to maintaining the ecological levels both inside and beyond one's own borders. Finally, involvement in *global citizenship* allows young people to become worthy citizens of the international community in general and the local public community in particular (Sharanova, 2021, p. 42).

Thus, a globally competent student possesses a set of knowledge, skills, attitudes and values in order "to work with others to solve globally-relevant problems and to improve the collective well-being of current and future generations (OECD, p. 4)." It involves knowledge of one's own history, cultural norms and traditions, and the similarities and differences between cultures. It also implies understanding of world history, social, political and economic processes and the interrelationships between them, e.g., sustainability, climate change, migration, poverty, famine etc. Learning a second language has a global component in its very core since it develops deeper understanding of the culture and helps to form tolerance and respectful interaction between representatives of different cultures. Finally, being a "citizen of the world" as well as a citizen of a particular country, promoting the equality of human rights and freedoms are inseparable parts of global competence

4.2. Matrix of global competence

Having analysed the existing researches and investigated the possible constituent concepts of global competence, we can create our own matrix of global competence for students of higher educational institutions of Ukraine. At the intersection of the elements of this matrix, we will be able to highlight key competences that will help prepare globally competent Ukrainian specialists. The matrix (see Fig. 1) of global competence includes the necessary knowledge, understanding, skills, attributes and values that will contribute to the upbringing of successful and competitive specialists who deal with the challenges of the global labour market.

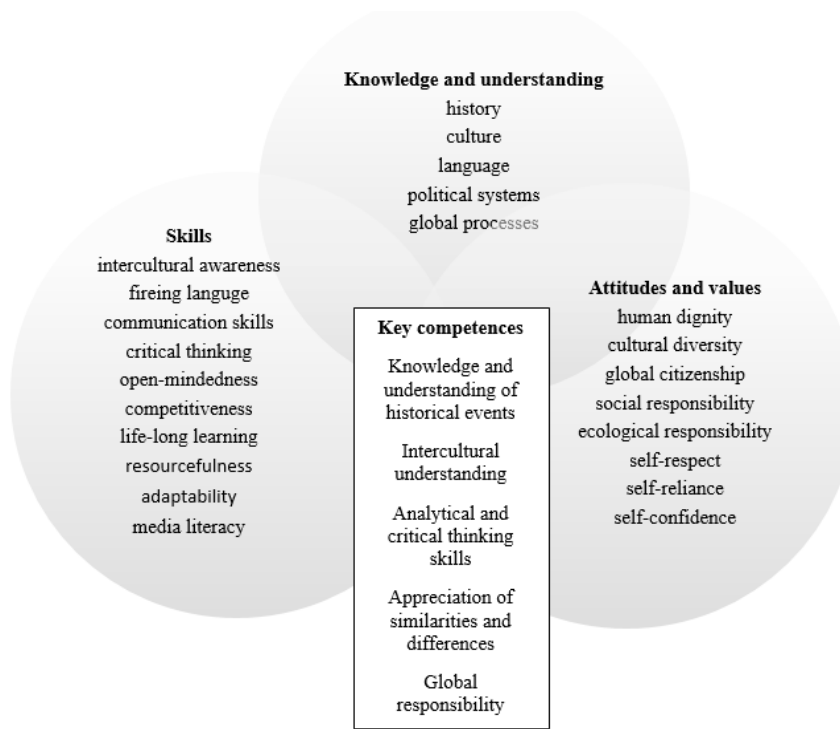


Fig. 1. Global competence matrix

While global competence has many different components, for educators it is vitally important not only bringing the global aspect into the classroom but making it a measurable learning objective. That is why we have chosen knowledge and understanding of historical events, intercultural awareness, analytical and critical thinking skills, appreciation of similarities and differences, global responsibility as the key competences. Three of the highlighted key concepts, (knowledge and understanding, analytical and critical thinking skills) can be rated on cognitive scales. The information on attitudes and values can be obtained through student questionnaire (OECD).

Thus, globally competent students must know their own history, be aware of the complexity and multifaceted nature of the world's historical processes, be able to analyze and establish the connection between historical events, modern economic and social processes, in order to solve the global problems of the world. To function successfully in a multicultural society, students must thoroughly know their own culture, norms and traditions, appreciate other cultures and find a common language with other representatives of society, taking into account the specifics of their cultural norms, beliefs and prejudice. Analytical and critical thinking skills help students to build an effective communication working in a diverse environment, changing their beliefs based on the new evidence and reasonable arguments; to identify bias and confront propaganda.

In today's globalized world, students must learn to realize their own uniqueness and function in society without limiting the uniqueness and freedom of self-expression of other individuals. That is why we consider appreciation of similarities and differences of people no matter of their origin, religious beliefs or cultural traditions, gender, skin colour etc. one of the key competences. And, finally, the attitude of global responsibility makes students responsible citizens of the world. They understand that even a minor action in the direction of solving ecological, social or sustainable issues on the local level can have major consequences on the global scale.

5. CONCLUSIONS AND SCOPE FOR THE FURTHER RESEARCH

In this paper we have studied the long process of implementing global competence into the curriculum of the US educational institutions. We have thoroughly analyzed the concept of global competence and its components and have created the list of key competences which can be used to

educate globally competent students. We can conclude that the acquisition of the knowledge, skills, attitudes and values by young specialists is intended to increase their competitiveness, intellectual and cultural development of the individual, forming the ability to respond to the changes of our time and the opportunity to successfully work in today's globalized world.

The obtained results should be taken into account when reforming the modern system of education in Ukraine. The training of globally competent specialists will be useful not only for the students themselves, but will also help in the development of the economic, social and political spheres of society, making our country successful and prosperous. Moreover, the experience of other countries is still to be studied with a detailed curriculum to be designed in order to satisfy the needs of modern graduates and faculty members.

However, with an endless technological development and the new global issues appearing on the horizon, the list of key competence must be constantly revised and the new competences must be added according to the challenges of the time.

REFERENCES

- Anoshkova, T. (2020). The role of liberal arts in educating future engineers. *Advanced Linguistics*, 5, 4–10.
- Avsheniuk, N. M. (2012) Mizhnarodni pidkhody do obgruntuvannya hlobal'noyi kompetentnosti vchytelya. [International approaches to the justification of the teacher's global competence.] *Profesiyna osvita: pedahohika ta psykholohiya*, 14, 241–248. [In Ukrainian]
- Barker, C. M. (2000). *Education for International Understanding and Global Competence*. Report of a Meeting Convened by Carnegie Corporation of New York.
- Deardorff, D. K. (2006). Identification and assessment of intercultural competence as a student outcome of internationalization. *Journal of Studies in International Education*, 10, 241–266. <https://doi.org/10.1177/1028315306287002>
- DeBoer, J., Stump, G., & Carter-Johnson, F. (2012). *Developing Direct Measures of Global Competence*. MIT Teaching and Learning Laboratory.
- Fedorenko, S. V. (2017). *Teoriya i metodyka formuvannya humanitarnoyi kultury studentiv vyshchyykh navchalnykh zakladiv SSHA* [Theory and methods of formation of liberal humanistic culture of students of higher educational institutions of the USA: dissertation on gaining the scientific degree of Doctor of Education Sciences]. Kyiv. [in Ukrainian]
- Horbunova L. S. (2014) Transkul'turna kompetentnist: osvitniy shlyakh do hlobalnoho kul'urnoho svitu. [Transcultural competence: an educational path to a global culture of peace]. *Filosofiya osvity*, 2, 141–167. [in Ukrainian]
- Hunter, W. D., White, G., & Godbey, G. (2006). What does it mean to be globally competent? *Journal of Studies in International Education*, 10, 267–285. <https://doi.org/10.1177/1028315306286930>
- Mansilla, V. B., & Jackson, A. (2011). *Educating for global competence: Preparing our youth to engage the world*. Asia Society
- NEA Education Policy and Practice Department (2010). *Global Competence is a 21st Century Imperative*. <https://www.staffordschools.net/site/handlers/filedownload.ashx?moduleinstanceid=35909&dataid=37863&FileName=NEA%20Global%20Competence.pdf>
- OECD. (n.d.). *Global Competency for an Inclusive World*. Programme for International Student Assessment (PISA).
- Parkinson, A. (2009). The rationale for developing global competence. *Online Journal for Global Engineering Education*, 4(2), 1–15.
- Partnership for 21st Century Skills. (n.d.). *A vision of 21st century citizenship. Reimagining Citizenship for the 21st Century: A Call to Action for Policymakers and Educators*. http://www.p21.org/storage/documents/Reimagining_Citizenship_for_21st_Century_webversion.pdf
- Radchenko, T. A. (2015) Shveytsars'kyy dosvid orhanizatsiyi navchal'noho protsesu na zasadakh polikul'turnosti u vyshchyy shkoli [The Swiss experience of organizing the educational process on the basis of multiculturalism in higher education]. *Porivnyal'no-pedahohichni studiyi*, 2, 70–76. [In Ukrainian]
- Reimers, F. (2009). *Educating for global competency*. In J. E. Cohen & M. B. Malin (Eds.), *International Perspectives on the Goals of Universal Basic and Secondary Education* (pp. 183–202). New York: Routledge.
- Sharanova, Yu. V. (2021). *Vykhovannya hromadyans'kosti studentiv u zakladakh vyshchoyi osvity SSHA. Dysertatsiya na zdobuttya naukovoho stupenya doktora filosofiyi* [Education of citizenship of students in higher education institutions of the USA. Dissertation for the Doctor of Philosophy degree]. Kyiv. [in Ukrainian]
- United States Department of Education. (2012). *United States Department of Education international strategy 2012–16: Succeeding globally through international education and engagement*. <http://www2.ed.gov/about/inits/ed/international/international-strategy-2012-16.pdf>
- West, C. (2012). *Toward Globally Competent Pedagogy*. NAFSA: Association of International Education.
- Willard, J. (n.d.). *Global competency*. http://www.nafsa.org/_File/global_competency_2.pdf

СПИСОК ЛІТЕРАТУРИ

- Авшенюк Н. М. Міжнародні підходи до обґрунтування глобальної компетентності вчителя. *Професійна освіта: педагогіка та психологія*. 2012. № 14. С. 241–248.
- Горбунова Л. С. Транскультурна компетентність: освітній шлях до глобальної культури миру. *Філософія освіти*. № 2. 2014. С. 141–167.
- Радченко Т. А. Швейцарський досвід організації навчального процесу на засадах полікультурності у вищій школі. *Порівняльно-педагогічні студії*. 2015. № 2. С. 70–76.
- Федоренко С. В. Теорія і методика формування гуманітарної культури студентів вищих навчальних закладів США. Дисертація на здобуття ступеня доктора педагогічних наук. Київ, 2017. 551 с.
- Шаранова Ю. В. Виховання громадянськості студентів у закладах вищої освіти США. Дисертація на здобуття наукового ступеня доктора філософії. Київ, 2021. 228 с.
- Anoshkova T. The role of liberal arts in educating future engineers. *Advanced Linguistics*. 2020. № 5. P. 4–10.
- Barker C. M. Education for International Understanding and Global Competence. Report of a Meeting Convened by Carnegie Corporation of New York, 2000. 143 p.
- Deardorff D. K. Identification and assessment of intercultural competence as a student outcome of internationalization. *Journal of Studies in International Education*. 2006. № 10. P. 241–266. <https://doi.org/10.1177/1028315306287002>
- DeBoer J., Stump G., Carter-Johnson F. (2012). *Developing Direct Measures of Global Competence*. MIT Teaching and Learning Laboratory.
- Hunter W. D., White G., & Godbey G. What does it mean to be globally competent? *Journal of Studies in International Education*. 2006. №10. P. 267–285. <https://doi.org/10.1177/1028315306286930>
- Mansilla, V. B., & Jackson, A. (2011). *Educating for global competence: Preparing our youth to engage the world*. Asia Society
- NEA Education Policy and Practice Department. Global Competence is a 21st Century Imperative. NY, 2010. <https://www.staffordschools.net/site/handlers/filedownload.ashx?moduleinstanceid=35909&dataid=37863&FileName=NEA%20Global%20Competence.pdf>
- OECD. Global Competency for an Inclusive World. Programme for International Student Assessment (PISA).
- Parkinson A. The rationale for developing global competence. *Online Journal for Global Engineering Education*. 2009. Vol. 4, № 2. P. 1–15.
- Partnership for 21st Century Skills. A vision of 21st century citizenship. Reimagining Citizenship for the 21st Century: A Call to Action for Policymakers and Educators. URL: http://www.p21.org/storage/documents/Reimagining_Citizenship_for_21st_Century_webversion.pdf
- Reimers F. (2009). Educating for global competency. *International Perspectives on the Goals of Universal Basic and Secondary Education* / Eds. J. E. Cohen & M. B. Malin. New York, NY: Routledge, 2009. P. 183–202.
- United States Department of Education. *United States Department of Education international strategy 2012–16: Succeeding globally through international education and engagement*. 2012. URL: <http://www2.ed.gov/about/inits/ed/international/international-strategy-2012-16.pdf>
- West C. Toward Globally Competent Pedagogy. NAFSA: Association of International Education, 2012. 156 p.
- Willard J. Global competency. URL: http://www.nafsa.org/_/File/global_competency_2.pdf

Тетяна Аношкова. Матриця глобальної компетентності. У статті на основі досвіду Сполучених Штатів Америки аналізується концепція глобальної компетентності та її основні компоненти, які пропонується в подальшому інтегрувати в українську навчальну програму вищої школи. Методами аналізу та синтезу критично вивчено праці зарубіжних дослідників. Виходячи з запропонованого визначення глобальної компетентності, виділено три її основні компоненти. Представлено перелік компетентностей, які відносяться до цих трьох груп. До основних компонентів, які були згадані в роботі, відносяться знання власної історії, норм і традицій; розуміння глобальних проблем і зв'язку між локальними та глобальними соціальними, економічними та політичними процесами; володіння іноземною мовою; аналітичні та критичні навички мислення; міжкультурне спілкування та оцінка культурних відмінностей; і глобальна відповідальність, яка включає цінування людської гідності та культурного розмаїття. На основі теоретичного аналізу та системного підходу побудовано матрицю глобальної компетентності. З урахуванням усіх компонентів матриці визначено ключові компетентності, які можуть бути використані для підготовки молодих спеціалістів у навчальних закладах України. На основі матриці були виділені: знання та розуміння історичних подій, міжкультурна обізнаність, навички аналітичного та критичного мислення, оцінка подібності та відмінностей, а також глобальна відповідальність. Вибір ґрунтувався на їх оцінювання на різних етапах освітнього процесу. Отримані результати згодом можуть бути використані для вдосконалення навчальних програм в Україні.

Ключові слова: глобальна компетентність; навчальний план; освіта в США; знання і розуміння; навички; ставлення та цінності.

Received: November 17, 2022
Accepted: November 25, 2022