

Implementation of SDGs in higher education institutions as a key stage in the development of modern education

Kushnir O.^a, Yakovleva O.^{a1}

^a Kyiv Institute of Business and Technology, Ukraine

Abstract

Modern education requires its stakeholders to understand the present and the immediate future needs. After all, the training of specialists takes place according to the needs of employers and society as a whole. Education has always carried a value basis formed the worldview of those who studied. Since 1992, education has been included in the main directions of global development, and in 2015 it was formulated as goal 4. In addition to declaring equal access to quality learning, it also includes learning other sustainable development goals, and it has a value component. We analyzed approaches to education, on the one hand, in international organizations, on the other hand, in a private educational institution. Here we will show how the design of sustainable development goals at the international level has influenced the awareness of its educational mission in a particular institution of higher education. Education gradually transforms from a classical one, which distances itself from the social situation to an integrated one in social life. Modern education involves business and industry representatives, politicians, and government officials, adapts curricula to business needs, and introduces valuable educational components. All students acquire the knowledge and skills necessary for sustainable development, including through education for sustainable development: appropriate lifestyles, protection of human rights, gender equality, promoting a culture of peace and non-violence through global civic education, and recognition of cultural diversity and cultural contribution to sustainable development.

Keywords: SDG 4; education, 2030 agenda, inclusive education, global education.

Реалізація цілей сталого розвитку у закладі вищої освіти як ключовий етап розвитку сучасної освіти

Кушнір О.^a, Яковлева О.^{a1}

^a Київський інститут бізнесу та технологій, Україна

Анотація

Сучасна освіта вимагає від своїх стейкхолдерів розуміння потреб сьогодення та найближчого майбутнього. Адже підготовка спеціалістів відбувається під потребу роботодавців та суспільства в цілому. Освіта завжди несла ціннісне підґрунтя, формувала світогляд тих, хто навчався. Починаючи з 1992 року освіта включена до основних напрямів глобального розвитку, а у 2015 сформульована як ціль 4. Окрім того, що ця ціль декларує рівний доступ до якісного навчання, вона також включає і навчання іншим цілям сталого розвитку, тобто несе в собі ціннісну компоненту. Ми проаналізували підходи до освіти, з одного боку, у міжнародних організаціях, з іншого боку, у приватному закладі освіти. Тут ми покажемо як оформлення цілей сталого розвитку на міжнародному рівні вплинуло на усвідомлення своєї навчальної місії у конкретному закладі вищої освіти. Освіта поступово перетворюється з класичної, такої що дистанціюється від суспільної кон'юнктури, на інтегровану в суспільне життя. Сучасна освіта залучає до викладання представників бізнесу і виробництва, політиків і представників органів державного управління, адаптує навчальні плани під потреби бізнесу, вводить ціннісні освітні компоненти. Всі студенти набувають знання і навички, необхідні для стійкого розвитку, в тому числі через освіту для стійкого розвитку: відповідні спосіб життя, захист прав людини, гендерну рівність, сприяння культурі миру та ненасильства через глобальну громадянську освіту та визнання культурного розмаїття та внеску культури у стійкий розвиток.

Ключові слова: освіта, порядок денний 2030, інклюзивність освіти, глобальна освіта.

¹ Corresponding author.
E-mail address: rector@kibit.edu.ua

Introduction

Large-scale and often rapid social transformations characterize modern society. Changes in some spheres of public life are happening so fast that the speed of these changes is astonishing compared to more conservative spheres of society. Therefore, it would seem that nothing can stop but even help in a simple explanation of what is happening in modern molecular physics, biochemistry, research on the functioning of human intelligence for people who do not have special deep knowledge in this field (Yakovleva et al., 2021). If we take the field of nanotechnology, for example, non-specialists can only believe and hope for miracles from experts. If it is impossible to understand how it works, then is it possible to make the right decisions about using modern technology products - nanotechnology, biological (primarily genetic), information, cognitive?

In 2015, developed countries (primarily EU countries) committed themselves together with all 193 UN member states to implement a global strategic plan entitled «Transforming Our World: Transforming Our World 2030»). In addition to substantiating the plan, this document consists of the Sustainable Development Goals (SDGs), which indicate the main directions of the development of global society.

Thanks to the 17 SDGs, the world community distinguishes between specific areas of activity to realize its ambitious vision of a peaceful, just, and socially inclusive world. For global society to use natural and human resources stably and without excessive loss in the future, it must already make sweeping changes at the economic, social (educational, scientific), and environmental levels. It also means striving for universal respect for human rights and empowerment, ensuring equality and self-determination for the citizens of each country (Ilyin et al., 2015).

In addition to encouraging people to protect the environment and social development, Member States stated their determination to «take the bold and transformative steps that are urgently needed to bring the world on a path of sustainable and steady development», and pledged to work together and thus tirelessly». Thus, the concept of partnership «based on strengthening global solidarity» plays an essential role in the implementation of the «Agenda 2030»: authorities, indigenous peoples, civil society, entrepreneurs and the private sector, academia and academia - and all people. «

Cooperation at all levels is crucial for sustainable development. Governments and civil society, the private sector, the education sector, and individuals must rebuild the world. According to a study by Abad-Segura E. and González-Zamar M.-D. For example, (2021) in 1990, the sustainable development issue was considered by authors from two countries, while in 2018, authors from 72

countries have already considered this issue. This indicates the relentless interest and relevance of this issue.

Since 1992, the United Nations Conference on Environment and Development in Rio de Janeiro has highlighted the crucial role of education in achieving sustainable development. In 2015, education development was one of the critical prerequisites for implementing Agenda 2030. The world community has set itself the goal of providing «inclusive and equitable quality education at all levels» for people of all ages and promoting lifelong learning opportunities that help them acquire the knowledge and skills needed to take advantage of opportunities and participate fully in social life». Providing education for sustainable development is an international challenge and requires the international cooperation of educational institutions (Zinchenko et al., 2021).

The proposed Sustainable Development Goal 4 reads «Ensure inclusive and equitable quality education and promote life-long learning opportunities for all» and includes a set of associated targets. We will consider some clarifying goals of education. Namely: Goal 4.3: Equal access to accessible technical, vocational and higher education for all women and men; Goal 4.4: Increase the number of young people and adults with relevant skills for financial success; Goal 4.7: Education for Sustainable Development and Global Citizenship

Achieving SDG 4 will help achieve these other SDGs: eradicate poverty (SDG 1), achieve gender equality (SDG 5), ensure good health and well-being (SDG 3), reduce inequalities between countries (SDG 10), promote sustainable, inclusive, and sustainable economic growth and decent work for all (SDG 8), build sustainable infrastructure and promote innovation (SDG 9) and promote peaceful and inclusive societies (SDG 16).

Like all SDGs, SDG 4's achievement - for inclusive and equitable access to education - is likely to be missed due to the COVID-19 pandemic. It is estimated that more than 200 million children will be left without education by 2030 (The Lancet Public Health, 2020). Most of the world's children were deprived of formal education during the COVID-19 outbreak, a legacy that could threaten the SDG's ambitions to leave no one behind. Many schools try to support programs through online education. However, many students in developing countries do not have access to the Internet.

The article considers a philosophical analysis of education as a key element of sustainable development and the Kyiv institute of business and technology (KIBIT) development program in the framework of achieving SDG 4.

Methods and Materials

We analyze the world trends in education to achieve sustainable development goals with a retrospective of 30 years. We use materials from

the Internet and documents of KIBIT. Analysis of global trends requires decisions that will ensure a sustainable environment and future-oriented education.

Results and Discussion

Participation in world educational rankings motivates Ukrainian HEIs to develop strategies based on the SDGs for international recognition and creating a positive image of Ukrainian education and research.

Modern education needs to become more flexible and targeted, i.e., better adapted to the specific needs of the student and the future employer. These education characteristics are becoming especially important in a society of rapid change, which is increasingly becoming our Ukrainian society. The pandemic has only accelerated and exacerbated societal changes, but they have matured and begun to show their impact even earlier (Panchenko, 2014; Gomilko, 2015).

Training a successful specialist for the future of society requires a radical change in the system of his education, compared to traditional ideas. First of all, success in a future society will require not so much knowledge of how and why economics, politics, law, and other social systems functioned effectively in the past, but knowledge and understanding of how and why they can function effectively in the future. Therefore, it is necessary to build education not on studying history but on studying prospects for future development. To study not so much Homer and Hesiod, Tacitus and Titus Livius, but the reports of the Club of Rome, the summary of the World Economic Forum in Davos, World Exhibitions, and other international events that demonstrate conceptual models of the future in various spheres of public life. Does this mean the history is not needed at all? No. But this means that our vision of the future must determine interest in history: future success is based on past achievements, but not everything that has been achieved before is the basis of this success - the necessary selection of significant, important topics and ideas from our past, significant in terms of the future (Kushnir et al., 2020).

The open nature of modern education and the involvement of business and industry representatives, politicians, and government officials integrate it more into the daily life of society, compared to classical education, which by its virtue sees itself as distancing itself from society.

By 2030, it was planned to develop tools and models that would allow everyone to receive and receive free, fair, and quality primary, secondary and higher education, leading to appropriate and effective learning outcomes and social development. However, this proposal needs to be concretized, as the social and personal development criteria are pretty variable: even now, there is a need to significantly reconsider the understanding of the

«relevant» results in pandemic areas. Thus, with the extension of quarantine conditions, it is hardly possible to properly implement the requirement to ensure access to quality education for all at all levels, creating appropriate conditions by 2030 that will allow everyone to move to the next level of education successfully and lifelong learning (Neroni et al., 2019; Al Lily et al., 2020). At present, it is not easy to talk about the complete preservation of classical education's high level of quality in the transition to distance education (Doghonadze et al., 2020).

On the other hand, the dominance of distance education generally simplifies several tasks even now, rather than by 2030: eliminating gender disparities at all levels of education, providing all women and men with equal and accessible access to high-quality vocational and academic education; to ensure that significantly more young people and adults acquire knowledge, skills, and abilities related to employment or self-employment. One such goal is particularly successful in ensuring equal access to all levels of education for all, including people with disabilities, indigenous peoples, and children with disabilities. This is due to the opportunities for international access to open educational programs provided by the Internet. Therefore, these can be joint educational programs for different people, countries, and different types of participation.

A systematic review of the future development potential of all types of production, and, consequently, the knowledge necessary for them, should be carried out to provide production and society with high-quality specialists not only by 2030 but in the long run. It is now clear that all students acquire the knowledge and skills necessary for sustainable development, including through education for sustainable development: appropriate lifestyles, protection of human rights, gender equality, promoting a culture of peace and non-violence through global civic education, and recognition of cultural diversity and the contribution of culture to sustainable development. If we do this now, we can expect all the other tasks on the 2030 Agenda to be appropriately implemented.

SDG 4 also prompted the creation of the UNESCO Education Program (which includes 193 Member States) – a renewed, comprehensive, and transformative program «Education 2030. Ichon Declaration and Framework for Action» (Education 2030 2016, 2016). This program aims to contribute to all UN goals of sustainable development. UNESCO considers education a necessary condition for promoting democracy, protecting human rights, strengthening global citizenship, and sustainable development. Accordingly, UNESCO has developed a framework for action to achieve the global education goal and supports implementation processes in its member countries.

The OECD (Organization for Economic Cooperation and Development, which includes 37 developed countries) also develops and monitors global sustainability goals. In addition, it is planned to prepare reports on policy coherence, analysis of progress, etc. The integrated Future of Education and Skills Training 2030 - OECD (The Future of Education 2018, 2018) and Learning Framework 2030 - OECD (Learning Framework 2030 - OECD, 2015) offers the forms, visions, and principles that underpin the global education and science system. The training structure was created jointly for the OECD 2030 Education Development Program as a project of government officials and a growing community of partners, including ideological leaders, experts, educational networks, school leaders, teachers, researchers, students, and young people, including their parents, universities (and other freelancers), organizations and other social partners.

The new OECD's Education at a Glance program (2021) annually examines the phenomenon of global education using special OECD indicators. The OECD Indicators in Focus (2020) is a regular series of briefings highlighting specific OECD «Education at a Glance» indicators of particular interest to policymakers and practitioners. It provides data on the development, financing, and effectiveness of education systems in 37 OECD countries and some partner countries.

For the first time, two new indicators provide comparative data on the level of success of higher education and the criteria for access to higher education. In addition, one section is devoted to the educational policy goal of the 2030 Agenda.

Higher academic and professional education remains popular and generates high incomes for individuals and taxpayers. However, new data show that the differences between individual research areas are significant. This is according to the latest OECD research. The report shows that economics, administrative and legal sciences are the most popular industries in OECD countries.

Every fourth student begins to study in these areas. On the contrary, on average, only 16 percent study engineering annually and only 5 percent study computer science, even if the employment rate of these graduates in many countries exceeds 90 percent. In the social sciences and humanities, the employment rate is 84%, but for those with higher education, opposed to those with only vocational education or a high school diploma. In general, the economic benefits of higher education remain significant. For example, in the EU, 88% of adults with higher education are employed, and 81% of adults with secondary education. However, the income of a worker with higher education is on average 66% higher, and the probability that such a worker will be among the top employees of his company is almost five times higher than that of

a worker with only professional qualifications (OECD's global knowledge base, 2021; OECD. stat, 2021).

Sustainable socio-economic development based on the principles of innovation is impossible without forming a highly efficient education system that allows the formation of new competencies and the development of existing ones throughout life. Forming the basis for the creation and dissemination of structural and educational innovations used in forming professional and so-called meta-subject competencies requires systematic modernization of additional education, which should become a full-fledged element of higher education.

Innovative development of the state is impossible without a highly efficient engineering and technical training system. It is also necessary to modernize training scientific and pedagogical staff who train future highly qualified engineers. The optimal structure of the teaching staff, which implements training programs for high-tech industries, should include both leading scientists-theorists and teachers-practitioners (Kirko & Kononova, 2019).

The world community is actively studying the concept of sustainable development of socio-economic systems, but the introductory provisions of this concept are considered, as a rule, on a global scale. Therefore, it is necessary to transfer the priorities of the study from the global to the national and regional levels to ensure greater management efficiency. Universities play a unique role in the region's economy. Regional universities are aimed at the needs of regional enterprises and organizations of various sectors of the economy, government, the implementation of higher and further education programs in demand in a particular region, to conduct basic and applied research relevant to the region (Kotomina, 2021).

Positioning universities to achieve sustainable development goals provides many significant advantages over other educational institutions: internationalization and international recognition, raising public awareness of sustainability, influencing social change, and creating collaborations with science and business in sustainable development (Panassenkova, 2020).

Since 2015, the Kyiv Institute of Business and Technology has been:

- implementing a policy of equal access to technical and higher education for all women and men (Goal 4.3);
- a business academy is held, which aims to develop students' entrepreneurial skills (Goal 4.4);
- teachers added SDGs education in the «Fundamentals of Business»;
- in 2021 the conference «The role of business education in achieving SDGs» is held, and a series of educational events for teachers of different HEIs are planned (Goal 4.7).

Work to achieve SDG 4 also contributes to the achievement of other SDGs:

- poverty eradication (SDG 1) - our graduates get a decent job in senior courses,
- achieving gender equality (SDG 5) - students learn to respect and value both their own and the opposite gender,
- reduction of inequality between countries (SDG 10) - since 2017, our institute has had more than 100 students from 26 countries.

During the COVID-19 outbreak, the institute continued to work remotely. As a result, teachers could turn to lecturing online and checking assignments in Google Class, as the institute has been connecting these tools since 2015.

Conclusion

Let us highlight the key areas of transformation of the modern education system, which will set a new vector for the development of educational systems in Ukraine:

1) creation of a system of continuing education, which really, not formally, provides the concept of «lifelong learning», modernization of the system of additional education;

2) revival and development of the system of integrated learning, which ensures the partnership of universities with business and society;

3) forming a system of access to the best educational resources, combining formal and informal education to individualize students' educational routes, and reducing the educational process's formalization.

The Kyiv Institute of Business and Technology strategy since 2015 includes SDGs. Therefore the institute was able to refocus on student-centered learning, involve business partners – future employers in the educational process, add education for sustainable development and global citizenship, create a business academy for the development of students' entrepreneurial skills, start teaching international students, switch to distance learning during the outbreak of COVID-19. This is because we believe that SDGs development in education is the key to building civil society and improving the world in which we live.

REFERENCES

- Abad-Segura E., González-Zamar M.-D. (2021). Sustainable economic development in higher education institutions: A global analysis within the SDGs framework. *Journal of Cleaner Production*, 294, 126133, <https://doi.org/10.1016/j.jclepro.2021.126133>
- Al Lily A. E., Ismail A. F., Abunasser F. M. & Alhajj Alqahtani R. H., (2020). Distance education as a response to pandemics: Coronavirus and Arab culture, *Technology in Society*, 63, 101317. <https://doi.org/10.1016/j.techsoc.2020.101317>.
- Doghonadze N., Aliyev A., Halawachy H., Knodel L. & Adedoyin A.S.(2020). The degree of readiness to total distance learning in the face of COVID-19-teachers' view: case of Azerbaijan, Georgia, Iraq, Nigeria, UK and Ukraine. *Journal of Education in Black Sea Region*. 5 (2). 2-41. <https://doi.org/10.31578/jeds.v5i2.197>
- Education 2030: Incheon Declaration and Framework for Action Towards inclusive and equitable quality education and lifelong learning for all. (2016). *World Education Forum 2015*. <https://unesdoc.unesco.org/ark:/48223/pf0000245656>
- Gomilko O. (2015). Knowledge society as a change to rationality. *Philosophy of education*. 1(16). 26-38.
- Ilyin I.V., Ursul A.D., Ursul T.A. (2015). New global goals of sustainable development. *Bulletin of the Moscow University. XXVII. Global studies and geopolitics*. 3/4. 60-84.
- Kirko V. I. & Kononova E. S. (2019) Education as a key factor in innovative and sustainable development. *Modern education* 1. 12-24. <https://doi.org/10.25136/2409-8736.2019.1.28894>
- Kotomina O. V. (2021). Functional model of the higher education system impact on a region's sustainable development. *Bulletin of the Perm National Research Polytechnic University. Social and economic sciences*. 3, 241-256. <https://doi.org/10.15593/2224-9354/2021.3.17>
- Kushnir, O., Pilipenko, V., & Yakovleva, O. (2020). Pandemic and distance education: on the way to entrepreneurship university. *Herald of Kyiv Institute of Business and Technology*, 44(2), 50-55. <https://doi.org/10.37203/kibit.2020.44.07>
- Leading Education 2030 (2021). The 2030 Agenda for Sustainable Development. URL: <http://en.unesco.org/education2030-sdg4>
- Learning Framework 2030 – OECD. (2015). URL: <http://www.oecd.org/education/2030/learning-framework-2030.htm/>
- Neroni J., Meijs C., Gijsselaers H.J.M., Kirschner P.A. & de Groot R.H.M. (2019). Learning strategies and academic performance in distance education. *Learning and Individual Differences*, 73, 1-7, <https://doi.org/10.1016/j.lindif.2019.04.007>
- OECD (2021). *Education at a Glance 2021: OECD Indicators*, OECD Publishing, Paris, <https://doi.org/10.1787/b35a14e5-en>
- OECD Indicators in Focus. (2020). URL: <http://www.oecd.org/education/skills-beyond-school/educationindicatorsinfocus.htm>
- OECD.stat. (2021). <https://stats.oecd.org/>
- OECD's global knowledge base. (2021). <http://www.wikiprogress.org>
- Panasenkova E.Yu. The effect of sustainable development factors on the strategic policy of universities. *XXI Century. Technosphere safety*. 2020;5(2):146–156. <https://doi.org/10.21285/2500-1582-2020-2-146-156>
- Panchenko L. (2014). The Public Vocation of Philosophy of Education in Conditions of Global Transformations. *Philosophy of education*. 2(15). 131-140.
- The Future of Education and Skills Education 2030 – OECD (2018). URL: [https://www.oecd.org/education/2030/E2030%20Position%20Paper%20\(05.04.2018\).pdf](https://www.oecd.org/education/2030/E2030%20Position%20Paper%20(05.04.2018).pdf)
- The Lancet Public Health (September 2020). Will the COVID-19 pandemic threaten the SDGs?. *The Lancet Public Health*. 5(9): e460. [https://doi.org/10.1016/S2468-2667\(20\)30189-4](https://doi.org/10.1016/S2468-2667(20)30189-4)
- UN (2015) Transforming our world: the 2030 Agenda for Sustainable Development <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>

Yakovleva, O., Slyusar, V., Kushnir, O. & Sabovchyk A. (2021). New Trends in Scientific and Technological Revolution (STR) and Transformation of Science and Education Systems in the Paradigm of Sustainable Development. *E3S Web of Conferences* 277, 06006. <https://doi.org/10.1051/e3sconf/202127706006>

Zinchenko V. V., Boichenko M. I., Popovych M. D. (2021). Higher Education And Sustainable Development Promotion: International Potential And Its Elaboration In Ukraine. *IOP Conference Series: Earth and Environmental Science*. 635. 012012. <https://doi.org/10.1088/1755-1315/635/1/012012>
