

Issues of Sustainable Development in the Education of Elementary School Youth: Facts and Prospects

Problematyka zrównoważonego rozwoju w edukacji młodzieży szkół podstawowych.
Stan faktyczny i perspektywy

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Abstract: The United Nations Resolution entitled “The 2030 Agenda for Sustainable Development” identifies the contemporary global challenges that need to be addressed this decade. The document includes seventeen specific goals, whose implementation depends on, among other things, the quality and scope of young people’s sustainable development education, started as early as at the primary school. This article will present the needs and possibilities of developing that education as part of compulsory and additional school subjects. Furthermore, certain recommendations for teachers will be proposed in the area of shaping primary school students’ sensitivity to the problems mentioned in the Resolution.

Keywords: Sustainable development education, sustainable development, 2030 Agenda for Sustainable Development, general education core curriculum for the primary school

Abstrakt: Rezolucja Organizacji Narodów Zjednoczonych pt. „Agenda na Rzecz Zrównoważonego Rozwoju 2030” określa współczesne wyzwania świata, konieczne do podjęcia w trwającej dekadzie. Dokument zawiera siedemnaście sprecyzowanych celów, których wdrażanie jest uzależnione m.in. od jakości i zakresu edukacji na rzecz zrównoważonego rozwoju młodzieży, realizowanej począwszy od szkoły podstawowej. W artykule przedstawiona zostanie kwestia potrzeby i możliwości rozwijania tej edukacji w ramach obowiązkowych oraz dodatkowych przedmiotów szkolnych. Ponadto zaproponowane zostaną pewne rekomendacje dla nauczycieli w zakresie kształtowania wrażliwości młodzieży szkolnej na zasygnalizowane w rezolucji problemy.

Słowa kluczowe: edukacja na rzecz zrównoważonego rozwoju, zrównoważony rozwój, Agenda na Rzecz Zrównoważonego Rozwoju 2030, Podstawa programowa kształcenia ogólnego dla szkoły podstawowej



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INTRODUCTION

The dynamic nature of the processes occurring in the socio-natural environment leads to certain effects which influence it. They are caused by, among other things, the economic growth, consequences of the industrialisation or promotion of the consumerist lifestyle. Recently, a lot of attention has been devoted in the literature of the subject to the issue of the so-called carbon footprint, resulting, for example, from using fossil fuels for energy production. All these activities encourage us to consider possibilities of ensuring optimum living conditions to the present and future generations. The noticeable environmental crisis, together with its manifestations, becomes a topic discussed during numerous debates conducted in the international arena (Tuszyńska and Witkowska-Tomaszewska 2023, 9-12). What exemplifies one of the results of such activities is the Resolution on adoption of actions aimed at achieving sustainable development, set out in 17 goals, as announced by the United Nations (UN 2015, 14). Protection of the socio-natural environment requires systemic actions. The area of educational activity is an indispensable place for that, as it is where individual's appropriate attitudes, described as pro-environmental ones, are shaped. Children and adolescents who participate in the primary school formal education system learn about the relationships existing in the world, which surrounds them, by means of appropriate content and didactic methods. Raising school students' awareness of the problems indicated in the 2030 Agenda for Sustainable Development is an objectively necessary process. Taking into account the issues mentioned in the Resolution in the core curriculum seems to be one of the first and even necessary steps to be taken. The aim of the article is to draw attention to the need to address problematic issues in the area of the sustainable development education in the educational process of primary school students. It will analyse, in terms of the sustainable development education content, the current general education core curriculum for primary schools. Furthermore, certain recommendations aimed at enriching the educational process with the issues set out in 17 sustainable development goals will be proposed.

UN SUSTAINABLE DEVELOPMENT GOALS AS A STARTING POINT FOR SUSTAINABLE EDUCATION AT THE PRIMARY SCHOOL

The Resolution adopted by the UN General Assembly on 25 September 2015 entitled *Transforming Our World: The 2030 Agenda for Sustainable Development* (UN 2015, 1-35) is a certain answer to the problems of the contemporary world. The document indicates the actions which may contribute to improving people's and planet's existence. Consequently, they are a certain guideline which helps shape a better global environment understood as socio-natural space. The universal nature of the problems the contemporary world faces has been described in 17 sustainable development goals and more detailed 169 tasks. Addressing, in the educational process, the issues indicated by the Resolution contributes to the

practical implementation of the assumptions of the sustainable development concept. It is necessary, among other things, due to the need to shape the public awareness of the most urgent challenges faced by the humanity within the ongoing third decade of the 21st century, being the agreed period for achieving the sustainable development goals.

The sustainable development goals in question have been described, as follows:

1. End poverty in all its forms everywhere
2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture
3. Ensure healthy lives and promote well-being for all at all ages
4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
5. Achieve gender equality and empower all women and girls
6. Ensure availability and sustainable management of water and sanitation for all
7. Ensure access to affordable, reliable, sustainable and modern energy for all
8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
10. Reduce inequality within and among countries
11. Make cities and human settlements inclusive, safe, resilient and sustainable
12. Ensure sustainable consumption and production patterns
13. Take urgent action to combat climate change and its impacts
14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development
15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
17. Strengthen the means of implementation and revitalize the global partnership for sustainable development. (Department of Economic and Social Affairs Sustainable Development)

The achievement of the above-mentioned goals by 2030 depends on, among other things, including the area in question into the process of formal education as early as at the primary school stage. The educational core curriculum, on the basis of which the syllabus is implemented, offers teachers the space to carry out sustainable development activities. Children who participate in the process of early school education and adolescents in higher grades of the primary school acquaint themselves with the idea of sustainable development in such subjects, as nature

education¹, nature², biology, geography or ethics. Obviously, it is basic information, but it demonstrates the problem contexts of that concept. The requirements of the sustainable development concept addressed as part of the educational process shape in the subject of education, i.e. the human being, the sensitivity to the surrounding world, including the challenges defined in the 17 goals. Consequently, the sustainable development education is a process on the basis of which the awareness of the problems present in the socio-natural environment is shaped (Sztumski 2024, 254). The environment inhabited by human beings, plants and animals, i.e. its constituting components. What constitutes the starting point for the sustainable education is demonstrating the socio-natural environment as a complex system in which certain necessary relationships occur. The above-mentioned systemic nature applies to school student's sensitivity to the holistic understanding of the environment. The point is to indicate the interdisciplinary nature which should be referred to in the process of becoming familiar with and taking actions aimed at protection of the environment. In order to protect the environment, one needs to learn about and understand the processes occurring in it, which is possible by drawing on achievements of various academic disciplines. "For this reason, the systemic thinking is more and more often reflected in research devoted to effective education for the care for quality of the environment, aimed both at children and adolescents, as well as, and first of all, at adults, who no longer participate in the formal education" (Duda 2022, 22). Young peoples' early-stage education in the field of sustainable development, as well as during the entire education process implemented at the primary school, constitutes the foundation for establishing in society a culture which manifests itself in attitudes for protection of the socio-natural environment.

SUSTAINABLE DEVELOPMENT IN THE GENERAL EDUCATION CORE CURRICULUM FOR THE PRIMARY SCHOOL

In the face of the human being's global and total impact on the environment, it is possible to notice negative consequences and threats which affect nature, the planet and human beings themselves (Embros 2010, 159). Preventing those threats constitutes a challenge for the humankind, and the sustainable development appears to be an element which restores the balance between human beings and their environment. Implementing it requires wide-ranging actions and a transformation of social attitudes manifesting themselves, for example, in the consumption of natural resources, material goods or services to meet needs. What constitutes another important tool to implement the sustainable development and shape awareness of society focused on preserving the environment in the best

¹ In the Polish education system, at the early school education stage conducted in grades 1 to 3, nature education constitutes an integrated thematic block that allows children to learn about the basic phenomena and relationships occurring in the world around them.

² The subject of natural science is taught in the Polish education system in the 4th grade of primary school. It is a separate subject aimed at providing students with information about the socio-natural environment and fostering a researcher's attitude towards the reality surrounding them.

possible condition is appropriate education. Education understood as a process of shaping the subject-human being at various stages of development. For this reason, education may adopt various forms, and be aimed at, for example, children, adolescents and adults. Among children and adolescents, an important role is played by formal education (Batorczak and Klimska 2020, 18-20; Hłobił 2010, 89). It is implemented at various levels, and covers the pre-school, early school, primary, secondary and academic education.

The formal education at the primary school consists of two stages: early school education (in grades I-III) and education in grades IV-VIII, whereas the form and content of that education are defined in the core curriculum. It includes the introduction, general assumptions, as well as goals and detailed content. At the first educational stage, two types of education have been distinguished which are to be conducted as part of integrated classes. Teachers themselves coordinate the sequence of the topics discussed. The second educational stage occurs as part of the individual subjects (Journal of Laws 2017 item 356, 11).

Teaching at the primary school constitutes the basis for educating children and adolescents, which is why the core curriculum at this stage should feature the most important goals and most significant teaching content. Analysing it in the context of the sustainable development, one can notice direct references to that concept, as well as discussion of the issues related to it.

The first reference to the sustainable development in the core curriculum includes its introduction: "The school (...) shapes the attitude of respect towards the natural environment, as well as disseminates knowledge about sustainable development principles, motivates to actions aimed at protection of the environment, and develops interest in ecology" (Journal of Laws 2017 item 356, 14). The issues in the introduction concern the entire core curriculum, so considering knowledge about the sustainable development at this place emphasises its importance and presents it as a significant element of the primary school education.

In the context of the issues in question, one of the types of the education which are to be conducted in grades I-III is the nature education. Participating in it, children become familiar with the surrounding nature, basic species and ecosystems, as well as learn why they should be protected. In addition, they learn about examples of nature protection sites in their local or regional environment. At this stage, they are also taught the basics of the waste segregation, as well as its importance for the human being and environment. They obtain knowledge of threats posed by the natural environment and how to deal with them. They become familiar with the nearest vicinity, considering its nature, socio-economic and cultural aspects (Journal of Laws 2017 item 356, 40-42). It is a very important element of the nature education implemented on the basis of getting to know the nearest vicinity of one's place of residence.

In grades IV-VIII, the sustainable development concept is reflected in the educational goals and content of three subjects. They include nature, geography and biology.

In the case of nature, the educational content covers issues connected with the natural and anthropogenic environment. Teachers should teach children how to notice the value of nature, as well as demonstrate its role in the human being's life and correct development. Attention is paid to, among other things, the importance of the right relationship between the human being and environment, as well as behaviour which results from such values, as respect and shared responsibility for the natural environment. The field classes provided for as part of this subject help make young people more sensitive to the beauty of nature, and shape their attitude to nature in practice. Excursions in the nearest vicinity help primary school students identify themselves with the local or regional environment (Journal of Laws 2017 item 356, 110-116).

In the case of geography, comprehensive reflection on the world in which the human being lives is undertaken. This subject integrates knowledge of the natural and socio-economic environment and humanities. What is demonstrated is relationships in nature, economy and societies, as well as among them. The need to respect nature, cultural achievements and other cultures, as well as the need to sensibly manage the environment's resources is emphasised. At the same time, the student's identity with the surroundings is shaped by references to the national and local natural and cultural heritage (Journal of Laws 2017 item 356, 116-130). It can be agreed that the reflection to be undertaken as part of this subject should reflect the mutual relationship and connection of nature and culture (Sadowski 2018, 8).

Biology is the subject where students learn about the variety of organisms, ecosystems as well as dependencies and relationships among them. What is dealt with in that subject is issues of the biodiversity, its essence and significance, as well as pollution. The human being's influence on nature is discussed. Examples of economical use of ecosystems, as well as the need to protect them are indicated. Types of nature's resources are presented and the need to manage them responsibly in accordance with the sustainable development principle. What deserves attention in obliging teachers to organise field classes which would enable students to experience in practice the topics they learn about, by means of noticing and observation of various plant and animal species, as well as biological phenomena and processes (Journal of Laws 2017 item 356, 130-143).

The syllabus covered in nature, biology and geography classes refers, to a significant extent, to the environment understood as socio-natural space. The teaching content is related to the biodiversity, aquatic and terrestrial fauna and flora, as well as and human health. These topics correspond to sustainable development goals 3, 14 and 15 set out in the 2030 Agenda for Sustainable Development.

Furthermore, geography classes sometimes feature topics connected with the economy, industry, urbanisation, energy or access to water. They are related to goals 7, 8, 9 and 11. The topic of renewable and non-renewable energy, as well as selection of its sources depending on environmental conditions is discussed. However, discussing urbanisation issues differs from goal 11 from the 2030 Agenda

(Department of Economic and Social Affairs Sustainable Development), as cities and communities are discussed without them being referred to the sustainable development. Geography is also a place for discussion about the problem of poverty or hunger, which have grown to significant proportions in certain regions of the world and constitute a big problem for societies living there. These issues concern goals 1, 2 and 3. What has also been considered is the reflection on the need of changes in the human being-nature relationship. It can be exemplified by discussion on a change of the model of consumption or approach to protection of the environment (Journal of Laws 2017 item 356, 116-130).

Sustainable development goals 1 and 5 concern equality (including gender equality), as well as reduction of various types of discrimination or inequality. A lot of attention has been paid to this idea in the core curriculum. It has been discussed in the introduction, as well as repeated in the requirements for the individual subjects. First of all, teachers should take into consideration students' individual educational needs. It applies to all students, both those with disabilities and learning difficulties, and the remaining ones. In this case, equality manifests itself in supporting the development of each of them, depending on their abilities, potential and needs (Journal of Laws 2017 item 356, 13). The achievement of these goals should be visible in teachers', educationalists' attitudes, and concern the adolescents' upbringing area, in order to show the value of a person irrespective of their appearance, nationality, gender or developmental asynchronies they may have.

The topic of cultural diversity appears in various subjects. Getting to know the culture or language in the subject of Polish, foreign and Kashubian language, as well as geography, students develop an attitude of respect and openness towards various cultures. In addition, the topic of person's dignity, tolerance and mutual respect is discussed in ethics and civic studies. Furthermore, teaching respect and tolerance takes place in art and music (towards other tastes, music or artistic skills) as well as physical education classes (towards others' physical fitness) (Journal of Laws 2017 item 356, 11-221).

As for the quality education defined in goal 4, the core curriculum features certain general and detailed recommendations. Teachers are encouraged to select teaching methods and techniques which would give better results. At the same time, examples of those which are worth using in certain classes are presented. Some methods are indicated as obligatory ones, and they have to be used in the process of teaching a given subject. It can be exemplified by organising field classes as part of biology, nature or geography. In this case, they are methods of conducting classes outside the school desk, and area aimed at demonstrating certain relationships which can be achieved during observation. What is also important is developing in students their motivation to learn and skills of individual learning, which is visible in numerous places of the core curriculum (Journal of Laws 2017 item 356, 11-221).

The issue of peace and justice, expressed in goal 16, is discussed mainly in history, civic studies, education for security and ethics. During civic studies classes, human rights, importance of democracy, various governmental and non-

governmental organisations, as well as citizens' involvement and activity in social life are discussed (Journal of Laws 2017 item 356, 11-221).

An element which deserves to be noticed in the subject of ethics is the fact that at least three aspects of the sustainable development concept have been considered. Students discuss the attitude towards themselves and other people (social aspect), towards human creations (economic aspect) and towards nature (environmental aspect). The topics discussed include, for example, corporate social responsibility and responsibility for future generations. The value of life, health, work, nature and environment in which the human being lives are demonstrated. In addition, the attitude of respect towards these values is developed, and moral obligations of the human being towards them are presented. Teachers emphasise the significance of justice and respect, tolerance and openness towards people from various cultures and those who have different beliefs. Another topic which is discussed in these classes is protection of the environment and appropriate treatment of animals (Journal of Laws 2017 item 356, 52-53, 202-209).

The core curriculum concerning various subjects in grades IV-VIII and types of education in grades I-III features' elements of selected sustainable development issues and nature-related matters interwoven with the content of the individual subjects. As part of technical education and technical classes, students are taught how to economically use materials and the responsibility for creations of individual and group work. The issue of waste, its responsible segregation and management is discussed as part of nature education, technical classes and chemistry. Pollution is the topic discussed in various aspects in biology, geography, chemistry and technical classes or nature education. Arts classes shape in students sensitivity to the beauty of nature, for example by means of creating works on the basis of elements of nature, landscapes or still lives. Teachers also have an opportunity of organising outdoor excursions. On the other hand, during musical education classes, children from grades I-III are taught, among other things, to imitate animal sounds. In chemistry classes, students learn about the acid rain and ozone hole phenomena, whereas in geography classes the problem of deforestation, pollution of the Baltic Sea or food waste is presented. What also needs to be pointed out is the occurrence of socio-economic as well as nature-related topic areas in the vocabulary required to be learnt in modern foreign language classes. It includes such categories, as work, shopping and services, human being, culture, natural world and place of residence. The examples of topics are as follows: weather, plants and animals, threats to and protection of the natural environment. Moreover, in Kashubian language classes, students become familiar with the local environment in terms of social, cultural and nature aspects (Journal of Laws 2017 item 356, 11-221).

INTRODUCING SUSTAINABLE DEVELOPMENT CONTENT AT THE PRIMARY SCHOOL - RECOMMENDATIONS FOR TEACHERS

The primary school is a place where students obtain knowledge, skills, certain competence, as well as where their attitudes, habits and behaviour are shaped. For this reason, it is important that the content related to the sustainable development permeates the core curriculum at the stage of primary education. Sustainable development education develops the skill of holistic analysis of problems concerning socio-natural space in students, and, at the same time, indicates its interdisciplinary contexts and various forms of education (Tuszyńska 2018, 16).

The analysis of the core curriculum conducted shows that the idea has been, to a certain extent, introduced in the content and assumptions of the education. It is directly referred to in a number of places, and most space has been devoted to it in the requirements for geography and biology. The attitude towards the environment as well as perceiving it in the natural and cultural context can also be found, apart from the above-mentioned subjects, in nature. One has to admit that the value of the natural environment and its importance for the human being is emphasised, and students are encouraged to take responsibility for it (Journal of Laws 2017 item 356, 110-143). The core curriculum also addresses individual issues connected with the sustainable development. They include health issues, the problem of poverty, energy and its sources, access to water, biodiversity on land and in waters, discrimination, openness towards other cultures, respect towards others, regardless of gender, place of residence, culture and other factors, innovation. In some subjects we can find nature-related elements interwoven with the syllabus content (for example in physical education, arts, music education or modern languages) (Journal of Laws 2017 item 356, 11-221).

Nevertheless, certain places can be indicated where issues related to the sustainable development can be developed further still. First of all, the issue of intergenerational solidarity and responsibility is present only in ethics classes (Journal of Laws 2017 item 356, 206). It is such an important element of the sustainable development that it could be discussed also in other subjects, for instance geography or biology.

In ethics classes, the products of human activity are mainly discussed in the context of someone else's property (Journal of Laws 2017 item 356, 205). At this place, they could be extended with the issue of economical and rational use of materials and environments' resources used for creating those products, as well as the production's impact on the environment. What also can be emphasised is the influence of everyday consumer choices on the environment and consumption of its resources. Similarly, in technical classes teachers could discuss the context of the influence of the human technical and industrial activity on the environment.

On the other hand, the limited number of resources could be emphasised in nature-related subjects. The topics which are worth mentioning include sustainable cities, transport and its influence on the environment and pollution of soil, in addition

to what has already been considered (i.e. of water and air). Another phenomenon which could be discussed is the climate change, as well as the possibilities of its prevention and adaptation to it (Nusche, Marc and Lauterbach 2024).

In “history” classes, teachers could mention the topic of technological development and its influence on the natural environment, as well as include information on societies’ various approaches to the environment and the resulting consequences. Specific examples could make students aware of the fact that the attitude towards the environment was important both in the past, and is important nowadays. It will help them understand that due to the current scale of impact the consequences for the environment and human being also become global, which is why it is so important to shape sustainable relations with the natural environment.

What may be discussed in “civic studies” classes is the issue of transition from the technocratic to ecological civilization. This subject could consider the topic of the influence of consumers and their choices on the market and demonstrate positive consumption models. The above issues can also be addressed in the “religion” class and the so-called “class tutor.” In the context of religious education, one can refer to the problems highlighted, for example, in Pope Francis’ encyclical *Laudato Si’*.

Despite the fact that the sustainable development and some of its assumptions have already been introduced to the core curriculum of the primary school education, certain supplements to the syllabus content could be proposed. The proposals presented above may further improve the core curriculum and inspire teachers to make classes more varied, at the same time providing students with knowledge of the sustainable development and shaping the attitude of respect towards the socio-natural environment in them. At this point, it is worth pointing out that the sustainable development is part of actions aimed at protection of the above-mentioned environment. Consequently, a systemic approach is necessary for providing information and knowledge to school students. The sustainable development goals set out in the Resolution are a clear example of the complexity of the problems the contemporary globalised world has to face.

SUMMARY

Developing the sustainable development content in the educational process of young people attending the primary school is justified by numerous reasons. Shaping proper attitudes and habits aimed at taking care for the socio-natural environment becomes useful in the adult life. At this stage, education based on appropriate values and attitudes, such as, for example, social solidarity, helps maintain the right relationship between the human being and the surrounding world. Furthermore, the sustainable development education draws attention to the global challenges faced by the contemporary world (Babicki 2021, 182). They are described in detail in the 2030 Agenda for Sustainable Development and indicate the direction for the actions to be taken. The education conducted at the primary school also becomes useful when it comes to developing critical thinking,

which manifests itself in the analysis and interpretation of symptoms from socio-natural space that may indicate crisis situations. Consequently, young people who participate in a reliable educational process are able to predict certain consequences of the actions taken. It is, to a certain extent, shaping ecological awareness, which allows ecological culture to develop in society. What is important in the sustainable development education process is the need to make school students sensitive to the environment in their nearest vicinity. The young generation equipped with awareness of local problems may take appropriate actions and propose initiatives for their little homeland. Although the challenges proposed in the 17 sustainable development goals which the contemporary world has to face are global, it is important to remember that we should, in the first place, begin with ourselves. Taking sustainable development content into account in the general education core curriculum for the primary school is a good way to take actions aimed at achieving the sustainable development goals. Thanks to their creativity, young people become helpful in implementation of certain projects, and, in addition, are really willing to take actions. The sustainable development educational process should not disregard the persons who implement it. What is meant here is the teaching staff, who should have the opportunity to participate in courses and training session on protection of the socio-natural environment. Thanks to its dynamics, this subject matter, which manifests itself with new processes which take place and new technologies which are implemented, requires to be updated on an ongoing basis. It will allow, among other things, implementing current problems into the subjects covered by the primary school core curriculum in question.

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