

PERSPECTIVES OF EDUCATION FOR SUSTAINABLE DEVELOPMENT – UNDERSTANDING AND INTRODUCING THE NOTION IN POLISH EDUCATIONAL DOCUMENTS

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Abstract

The aim of this article is to present an analysis of formal educational documents in the context of the sustainable development notion. This goal was realised by an analysis of the National Curriculum Framework documents from 2002 in comparison with the newest document from 2008. In addition, seven teaching programmes were analysed. On the grounds of the sustainable development definition and in the context of UNECE Strategy of Education for Sustainable Development, a list of direct and indirect linguistic indicators was created. To count the key words, the text editor Adobe Reader 9.0 was used. In the oldest version of the National Curriculum Framework, the key words defining sustainable development or their components occurred 119 times, in the newest – 165 times. The new version covers the scope of sustainable development in a wider range.

Key words: *education, sustainable development, teaching programmes, direct and indirect linguistic indicators*

Introduction

The concept of sustainable development (SD) occurred in the world as the response to the enormous and very harmful effects of the change in the civilisation direction. Contemporary times force us to face many difficult questions about how we should live not only to assure the quality of life, but also to ensure the world's existence for the next decades.

The idea of SD is currently a quite popular notion which is reveals in many documents on international and national level. But SD is significantly more than only obeying the rules of law. It is about changing the consumer, social, cultural and ecological awareness of every human being. Not only is it the family who influences this awareness but also place of work, media and school society (Batorczak, 2008). Unfortunately, many analyses and observations point out that the notion of SD in the Polish reality, including education, is not well-known (Cichy, 2005; Kuzior, 2005; Batorczak, 2008). It is often identified with topics connected with the environmental protection, ecology or environmental education. Accord-

ing to the report from 2008 (Bołtromiuk & Burger, 2008) about ecological awareness of Poles, only 36% of the respondents pointed the proper definition of SD. A question arises: *Is it caused due to a large degree of effects of the quality and content of school education and the absence of the notion in Polish programmes and textbooks?*

Borys (2006, 2009) shows that educational frameworks do not take into consideration the idea of SD at all, or at a really high level of generality they introduce “any” principle of SD. Perhaps, this is one of the important causes of low awareness level among Polish teachers, pupils and citizens under the scope of SD. On the one hand, thus, the idea of SD itself is not sufficiently presented in educational documents; it is a prerequisite that will let SD issues occur at lessons and school activities. On the other hand, according to Mendel, Dymnicka, Rozmarynowska, Sagan, Zielka and Puchowska (2008), while the Regulation of Education from 1991 refers to the significance of popularizing the rules of SD among children and teenagers at school, these aims are impossible to achieve without all education forms and life school being penetrated by SD idea. Only in terms of treating education as a system we can achieve the goals. In the present article, we tackle how far the contents of formal educational documents undertake the SD issues.

Sustainable development – understanding and defining the notion on the international level

The notion of SD is not always clear. According to Landorf, Doscher and Rocco (2008), over 300 definitions of the concept have been found by Dobson. It can be understood in various meanings and is defined in many contexts. These are the following: as a technical term used in forestry; as an ecological term; finally, as a new definition established by the United Nations – it refers to the development of humanity and of human societies (Di Giulio, 2006).

Sustainable development and its reflection in Polish actuality

In Poland, the idea of SD is widely presented in many documents, acts of law and strategies. It is also introduced in the Constitution of the Republic of Poland: “The Republic of Poland guards independence and inviolability of its territory, ensures freedoms, human and citizen rights and the safety of citizens, guards the national heritage and ensures the environmental protection driven by the sustainable development principle” (The Constitution of the Republic of Poland, chapter I, article 5, p. 2). According to Sommer (2005), there is no direct definition of SD involved in Polish Constitution, but it is strongly in connection with the socio-economic development which has anthropocentric characteristics. The idea of SD is also incorporated in the ordinary legislation acts as in the Act of Law of Environmental Protection. It provides the definition of SD – it “is such socio-economic development in which political, economic and social actions are integrated with preserving the natural balance and stability of basic natural processes in order to guarantee possibilities to meet the

basic needs of particular societies or citizens for both the present and future generations” (Act of Law of Environmental Protection, article 3, point 50, p. 9).

Education in favour of sustainable development in Poland

Formal as well as informal education plays a significant role in promoting the idea of SD as a change of socio-economic development. At present, in Poland the school duty refers to every citizen at the age of 6–18. Since people’s awareness, hierarchy of values and philosophy of life are shaped during this period of time, the school institution and contents realised there with the outcomes of National Curriculum Framework, and teaching programmes are very important factors which influence the direction of change in future times.

There are only some preliminary analyses concerning ESD in Poland so far. They show that the notion is rather unknown to teachers. This situation seems to be the same through the recent years. Not only opinion surveys conducted by the authors among well-experienced teachers/teaching advisers, but also questionnaires highlighting teachers’ interests of educational offer of SD showed both lack of curiosity about it and very traditional or colloquial associations with the concept of SD (treating it as synonymic with ecology or environmental protection). Rather a similar level of awareness and knowledge of SD is displayed by pupils. According to Kuzior (2005), they do not have any knowledge of SD.

In the context of the above-mentioned study, it is compelling if this situation is a result of the lack of this issue in the educational documents or if there are any other causes. In Poland teachers activities at school are pinpointed by: National Curriculum Framework (NCF), teaching programmes and textbooks. The most fundamental document is the National Curriculum Framework, which is the Regulation of the Minister of National Education and constitutes the obligatory law that has to be obeyed by teachers at school. It consists of the educational objectives, school tasks, teaching contents, expected pupils’ achievements and some methodical hints. Teaching programmes, on the other hand, formulate what is in NCF in detail. According to the new alterations of the Polish Educational Act, teaching programmes can be written by the teachers’ and may be introduced into practice relying on the school principal’s approval (Polish Educational Act, art. 22a).

The change as a whole is an effect of the complex reform of education, which was started in 1999. At that time, the NCF as a governmental document was introduced to which any number of programmes and textbooks might be written. It was under teacher’s decision which of the textbooks accessible on the market he/she would accept to adjust the teaching content to pupils’ needs. As an essential part of the reform, external exams took place, which tested the level of realisation of educational standards predetermined for the entire country.

After 10 years of first NCF functioning in 2008, the government introduced a significant modernisation of this document making it more detailed. If, during this time, there would be observed a meaningful change in thinking about education for sustainable development (ESD), it should be noticed in the contents of these two documents as well.

Research methodology

The research is based on a quantitative analysis of a number of important educational documents such as National Curriculum Frameworks and teaching programmes. The aim of this work was to find out if the curriculum documents which pinpoint the aims, methods and contents of teachers work at school cover the notion of SD. The present study also seeks to determine how often the notion of SD occurs and on which educational levels, and to which subjects it refers. The researchers were aiming at comparing the newly launched NCF (2008) with the document introduced in 1999, when the educational reform started in Poland.

The most fundamental documents were taken into consideration. There were National Curriculum Frameworks: the Regulation from 2002 and the Regulation from 2008 – the currently valid one. Seven teaching programmes were also analysed. Particularly, subjects such as primary science, biology and geography were taken into consideration. Teaching programmes of the above-mentioned subjects were analysed: one programme of primary science (primary school), one programme of biology (middle school), one programme of geography (middle school), one basic programme of biology (secondary school), one expanded programme of biology (secondary school), one basic programme of geography (secondary school), one expanded programme of geography (secondary school). The most popular educational publishing in Poland (WSiP) was taken. To find out the presence of SD in the above-mentioned documents, the authors constructed a list of direct and indirect linguistic indicators (key words and phrases) on the basis of literature, UNECE strategy and personal knowledge.

The list of linguistic indicators of SD is presented in Table 1 (Appendix). To count the indicators, the text editor Adobe Reader 9.0 was used.

Results

In the National Curriculum Framework (NCF) from 2002, key words defining sustainable development (SD) or their components occurred 119 times. The most frequent were: identity, tradition, critical thinking (Appendix, Table 2 and Figure 1). The rarest among the below-mentioned are the following words: eco-development, local problem and global problem. We obtained no results for: cooperation, participation, poverty and consumption.

In the newest document (NCF from 2008), the key words defining SD or its components occurred 165 times. The most frequent indicators were: identity, tradition, cooperation and social activity (Appendix, Table 4 and Figure 2). The rarest indicator was the word “participation”. No results were found for the word “eco-development”. In both documents, the indicators “social justice” and “fair trade” present no results.

Direct indicators (sustainable development and eco-development) are found only in the annulled document (for the latter only one result), the number of the former is similar in both documents.

Particular attention was devoted to teaching primary science, biology and geography. It occurred that, in the annulled NCF, the results of indicators were only obtained in middle

school and secondary school, and only in geography (Appendix, Table 3). The analysis also indicates that, in the new document, key words occur more frequently and in a wider number range of teaching subjects (Appendix, Table 5). It is also proved that no result is found for biology in secondary school.

Comparing the number of results of indicators in the annulled NCF with the number of results in the analysed teaching programmes (appropriate for this document), it was observed that, similarly, (in the NCF – 2002 and in the teaching programmes) there is no result for primary science (in a primary school), but, interestingly, it is mentioned in biology in middle school and in geography in secondary school (Table 6 and Table 3).

Taking into consideration the number of indicators and the number of results, a higher number of results was observed for secondary schools in both the annulled and the new National Curriculum Framework. It was also observed that the new version of NCF covers the scope of SD in a wider range.

In the annulled NCF (2002), the indicators were observed in a frame of the following subjects and educational paths:

1. for primary schools: history and society, the Polish language, education of fine arts, a language of the national minority or ethnic group; educational paths: education for living in society, ecological education, reading and media education;
2. for middle schools: geography, knowledge about society, a language of the national minority or the ethnic group, the Polish language, history; educational paths: regional education and cultural heritage in a region, ecological education, reading and media education;
3. for secondary schools: geography, ethics, a language of the national minorities or ethnic groups, knowledge about society, history, the Polish language, a foreign language, the Greek language and antique culture, knowledge about culture; educational paths: ecological education, the European education, reading and media education, regional education and cultural heritage in a region, philosophical education.

In the new NCF (2008), the linguistic indicators were observed in a frame of the following subjects:

1. for primary school: a foreign modern language, history and society, a regional language (Kashubian), a language of national minorities or ethnic groups, fine arts, primary science;
2. for middle school: knowledge about society, biology, a foreign modern language, ethics, a regional language (Kashubian), the Polish language, a language of national or ethnic minorities, fine arts, geography;
3. for secondary school: knowledge about society, geography, primary science (as a supplementary subject), ethics, biology, history, a regional language (Kashubian), the Polish language, a language of national or ethnic minorities, culture, physical education, history and society (as a supplementary subject), basics of entrepreneurship.

Discussion and conclusions

If, in such crucial documents (NCF, teaching programmes), core words related to sustainable development occur quite rarely or do not occur at all, it could mean that the idea of sustainable development is still weakly rooted in the Polish educational system. The only found work on SD related to the Polish national curriculum is written by Kuzior (2005) who showed children's awareness of SD idea regarding the National Curriculum Framework from 2002. The received data have not strongly changed through the years from 1999–2009. Salite and Pipere (2006) who describe Latvian reality of legislation documents taking into consideration the presence of sustainability matters conclude that it is mostly a catchphrase rather than an essential concept leading to a meaningful and responsible human development and sustainable education.

We can presume that a very poor knowledge of SD concept among teachers and pupils in Poland may be the most meaningful consequence of National Curriculum content. From our research a conclusion has been drawn that, despite the fact that the notion of sustainable development occurs in both curriculum documents (NCF from 2002 & NCF from 2008) either directly or indirectly, the results are still scarce. There are such indicators as identity (cultural, international, regional, etc.) and traditions which emerge in many results in both documents, but a wider range of indicator variety was observed in the newest curricular document from 2008.

Two major findings with further recommendations emerged during this research. Firstly, we can observe in a new version of the National Curriculum a small step towards changes. There is no doubt that education has a strong potential in changing the direction of the worlds' development. If we want to think about treating education as a tool for implementing a new idea, we must start from the change of educational documents. Secondly, National Curriculum Framework points out the aims, content, actions of teachers and pupils at school. Even if there are many topics of sustainable development mentioned in education for sustainable development (ESD) and being a part of the formal education, these topics are seen in a way which does not contribute to a wider concept of SD. ESD should include not only knowledge about environment, economy and society, but also issues that threaten the balance in our planet, practical skills which will help people to deal with problems of non-sustainable world in future after learners leave school and inter- and intra-national perspectives such as the ability of looking on issues from different points of view to create a better mood of cooperation (UNESCO, 2005).

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Appendix

Table 1. The list of linguistic indicators of SD and their contexts

Type of indicator	Name of indicator	Context which let to classify the key word as the exact indicator
DIRECT	Sustainable development	It is such a socio-economic development in the world that, according to the “Our common future” report, “meets the needs of the present without compromising the ability of future generations to meet their own needs”; economic, ecological, social and cultural development, ensuring the quality of life of people from the globe, the economic growth cannot exist as the effect of maximizing the exploitation of natural resources
	Eco-development	Understood synonymously with the idea of SD or as a model of a socio-economic development in the world, emphasizing its ecological dimension
INDIRECT	Local problem	Local problems, problems of the nearest surroundings, problems of the school society, problems of the place of living, regional problems, national problems, problems of the country, finding the location and solution for local problems
	Global problem	Global problems of the contemporary world, global phenomena or phenomena existing in a global perspective, which have an influence on peoples’ life in the world
	Social activity (social activity, citizenship activity, human activity, citizens’ action, citizen-like attitude, citizens’ participation)	Human activity in favour of society (local, school, national, European, etc.), citizens’ activity and actions in favour of the country, citizens attitude, citizens participation, human activities and its ethic aspects

Sequel to Table 1 see on p. 64.

Sequel to Table 1.

Cooperation	Cooperation during the lesson, in a group, in favour of local society, the Polish society, to deal with public affairs, cooperation between pupils at school to achieve the aim
Participation	Taking part in a local social life, school life, the nearest surroundings, collaboration with institutions, organisations and pupils to realise the social, cultural, ecological aims; taking part in a public and social life, in events of local environment, important for a school, a region or the country
Social justice/justice between generations /justice between inner generations	Just distribution of goods, just access to the environmental resources, to education, health services, right to a dignified existence for people all over the world, the right of future generations to resources, goods
Resources/renewable resources, non-renewable resources, natural resources, environmental resources, resources of environment	Resources protection, rational management of resources, usage, exploitation of resources
Equation of chances/social inequalities/inequalities of life chances	Equating the educational chances, life chances
Cultural identity/national/regional/national heritage/cultural/cultural attachment	Identity with the place of birth, place of living, patriotic feelings, national heritage, cultural heritage, identifying with the culture, tradition, history of the city and country
Fair trade	Products of fair trade, obeying the human rights in the world, people's and children's exploitation, slave labour, just distribution of profits from products exported to richer countries, dignified work conditions of workers in farms
Poverty, hunger	Poverty in the world, unjust good distribution, developmental countries, rich North and poor South
Tradition, local, regional, national, cultural; cultural output	Customs and traditions in connection with the place (region, country), which are the pride of the citizens of society or cultivated through the years by generations
Critical thinking, analysis, critical estimation, opinion towards something	Critical attitude towards information, estimating the results of research, experiments, tasks, different sources of information
Consumption, consumerism, models of consumption	Consuming goods, products, models of purchasing goods, products

Table 2. Results for key words of SD in the annulled NCF (2002) on three levels of education

Name of indicator	Number of results	Primary school	Middle school	Secondary school
Sustainable development	7	0	0	7
Ecodevelopment	1	0	0	1
Global problem	1	0	0	1
Local problem	2	2	0	0
Social activity	9	2	0	7
Resources	8	2	1	5
Equation of chances	4	1	1	2
Identity	62	14	12	36
Tradition	15	6	6	3
Critical thinking	10	2	2	6
Total	119	29	22	68

Table 3. Number of results of key words in the annulled NCF (2002)

Teaching subject	Indicator and its frequency of occurrences
Primary science (primary school)	0
Biology (middle school)	0
Geography (middle school)	2 (resources, identity)
Biology (basic – secondary school)	0
Biology (expanded – secondary school)	0
Geography (basic – secondary school)	1 (sustainable development)
Geography (expanded – secondary school)	4 (sustainable development=1, eco-development=1, global problems =1, resources=1)

Table 4. Number of results for key words in the new NCF (2008) on the three levels of education

Name of indicator	Number of results	Primary school	Middle school	Secondary school
Sustainable development	8	0	0	8
Global problem	4	0	1	3
Local problem	4	0	2	2
Social activity	16	2	5	9
Cooperation	21	3	7	11
Participation	2	0	0	2
Resources	10	0	2	8
Equation of chances	8	3	1	4
Identity	44	7	17	20
Poverty	7	1	0	6
Tradition	25	8	5	12
Critical thinking	12	0	4	8
Consumption	4	0	0	4
Total:	165	24	44	97

Table 5. Number of results for key words of SD in the new version of NCF (2008)

Teaching subject	Number of results
Primary science (primary school)	1 (tradition)
Biology (middle school)	2 (global, local problem)
Geography (middle school)	2 (resources)
Biology (basic – secondary school)	0
Biology (expanded – secondary school)	2 (sustainable development, resources)
Geography (basic – secondary school)	8 (sustainable development = 1; resources = 1; poverty = 4; tradition = 1; consumption = 1)
Geography (expanded – secondary school)	8 (sustainable development = 3; global problem = 1; local problem = 1; resources = 2; identity = 1)

Table 6. Number of results for direct linguistic indicators (key words) of sustainable development in teaching programmes for chosen teaching subjects on the three levels of education

Level of education	Teaching subjects	Indicators	
		sustainable development	eco-development
Primary school	Primary science	0	0
Middle school	Biology	4	0
	Geography	0	0
Secondary school	Biology (basic level)	0	0
	Biology (expanded level)	0	0
	Geography (basic level)	10	0
	Geography (expanded level)	7	4
		a phrase “sustainable growth” occurs twice	

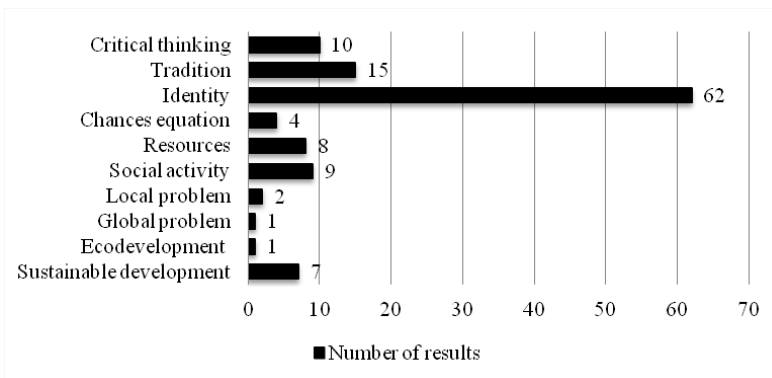


Figure 1. Number of results in the annulled NCF (2002) for key words

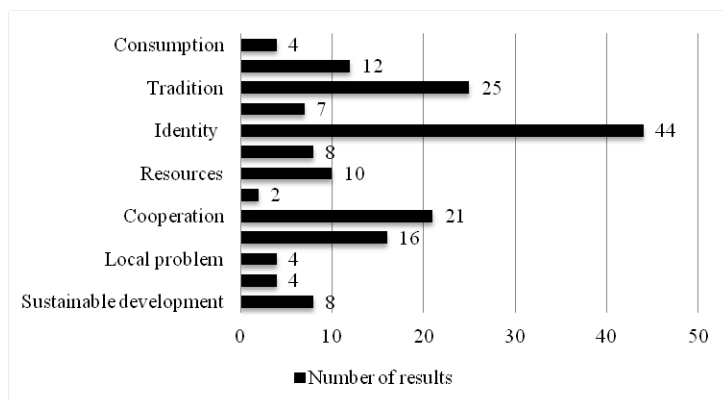


Figure 2. Number of results from the new version of NCF (2008)

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