Abstract
In the text, types of reforms to formal education are introduced, and against this background, an answer is sought to the question of who they serve, who is interested in this multi-layered effort, who is or can be a beneficiary and who is a loser in this process. The central part of the text is a presentation of types of the reform. Then, the effects of reforming education are indicated. The conclusion underlines the importance of research in the process of reform, in the action, as a professional practice of integrating cognition and change.

Keywords: education, reform, types of education reforms, subjects of education

“There is more talk than ever about school’s being nineteenth-century invention that have outlived their usefulness. Schools are expensive; they do not do what is expected of them; Anyone who wants to give a speech on this subject will draw an audience and attentive listeners.”
(Postman 1996, p. 196–197)

Introduction
Let us start with the slogan “schola semper reformanda est”. However, when it happens in everyday context, no one pays attention to it. Education in the “time of peace”, functioning without sensation, is a rare issue in the public discourse. It only arouses a niche interest, i.e., of people professionally or personally related to education. Only information about the reform makes education the center of attention of non-specialists. After all, according to folk wisdom: everyone is an expert in education, medicine and economics.
The issue of reforming education is popular among professionals, both practitioners and theoreticians. It also arouses many emotions and discussions among people and groups unprofessionally connected with education: parents, local government officials and politicians. The education reform raises hopes, but also anxiety. It is, or at least can be, used as a means, a causative factor in the implementation of common ideas, but also in particular interests. Like every change, it imprints its mark on the individual and collective position of its participants. It affects their daily lives and their careers. In the face of such perception of education reform(s), the question arises: in whose interests, for whose wellbeing formal changes are made, who they serve, and who they can interfere with.

Although the school as an institution of general education has a relatively short history (just over 200 years), it has refined its own verbal, iconic, kinetic and proximal communication codes. In other words, schools and education have their own “grammar” (Tyack, Tobin, 1995), i.e., a system of rules regulating people’s behavior, use of objects (“nouns and verbs”), time and space management (“adverbs”) and teleological and axiological principia (“adjectives”). Their durability and domination in individual and collective consciousness are a significant factor in real reforms and changes. In addition, the complexity of the school system and the reform process requires learning, interpreting and explaining it from many theoretical perspectives, from the point of view of many disciplines of knowledge. This is particularly important in terms of the division of science and guarding their borders. Modern science, as Gleick (2017, 47) writes, resembles a battleship with pitted partition walls. Educators, psychologists, sociologists, economists, and others are focused on their points of view. They are not interested in discovering what, how and why, is changed in education and its institutions. Many opinions and comments have a colloquial character.

The metaphor of “battleship” also refers to education. In analyzing education reforms it is necessary, if not to demolish walls, but at least to make holes in them. However, it is necessary to determine why and for whom education should be reformed. In whose interest this effort should be made. Any reform is after all a great effort of people and institutions involved directly and indirectly in the change process.

In this text, the focus is on formal education, i.e. the one that is provided in institutions, implementing the core curriculum established by the state in the interaction process of teachers and students and certified by state-recognized documents (certificates, diplomas, professional titles). Formal education understood in this way is a means and a center of fulfilling the function of the education system, including the implementation of compulsory education, statutory obligation to
study and obtain qualifications included in the National Qualifications Framework (in the case of Poland, in the PQF).

**Types of education reforms**

We live in a world in which changes occur in exponential time. The dynamics of social phenomena and the development of science mean that formal education is chasing changes with greater or lesser success. It is trying to keep up with them. However, it always lags behind. It acquires the characteristics of a “document” of history. It has its good and bad sides. Good, because it ensures durability, continuity, and thus promotes a sense of security, especially of teachers and parents, of functioning in the domestic world of principles, forms and rituals. Bad, because formal education becomes an island, an ivory tower, and, as an effect, sounds, smells and colors, harmonies and turbulences happening in the real world are hard to reach. The search for balance between school and “street corner life” is the main challenge, source and goal of education reforms, the multiplicity of which results in the multiplicity of types of reforms. Now is a brief explanation of their diversities.

Among the criteria of the typology of reforms of formal education, the scope of change is at the forefront. On this basis, one can distinguish holistic and partial reforms. The first ones include changing the whole school system, its structure and the form and content of education in each of its elements. It also includes changing the qualification requirements of teachers. An example of this are the reforms carried out in Poland in 1999 and in 2016. Partial reforms include selected elements of the school system, their functions and core curricula, the organization of the education process, etc. An example is the reform of early education, implementation of inclusive education, changing the core curriculum of selected subjects, etc. It can also be a reform of the education of candidates for the teaching profession.

Both holistic and partial reforms of education can be generated by transnational educational policies (e.g., EU education policy, recommendations of the Council of Europe, OECD, etc.) or the result of national decisions. This criterion can be called the source of the reform initiative. While the Polish reform of 1999 was part of the Europe-wide ideas, including the organizing of the school for 13–16-year-old students ̶ lower secondary school (called: gimnazjum in Polish, middle school), the last reform is the result of local, and often even personal, resentments. This applies to both the school system and the core curriculum.
Another criterion for distinguishing education reforms are the **premises for changing** education. Due to this criterion, reforms resulting from scientific premises can be distinguished, argued by the results of scientific discoveries, contents of reports on the state of education and reforms based on ideological, including political, premises. It is worth mentioning that although the adjective “political” is an insult today, any reform of education, whether holistic or partial, is involved in a political process.

While the former source of premises can be described as rational, based on the reason and the results of professional analyses, the latter is characterized by calculation, relying on emotions, orientation on populism.

Let us briefly point to the specificity of the scientific premises of education reforms. Education and its institutions are both common and grateful objects of scientific studies. In addition to studies conducted in universities and by teachers-practitioners, educational issues in their various dimensions are the subject of studies by specialized institutions, such as the Educational Research Institute in Poland, whose statutory task is to conduct interdisciplinary research on the functioning and effectiveness of the education system. The Institute participates in national and international research and implementation projects, prepares reports, expert opinions and performs advisory functions. It supports broadly understood policy and educational practice. Therefore, it can be assumed that the results of research conducted at this Institute have become the basis for reforming educational changes. Unfortunately, it is not the case. They were ignored by the 2016 reform decision makers.

The qualities of professionalism are the most interesting and attractive subject of scientific research. Numerous studies in the field of pedeutenology have a chance, and at least could become a source of reform initiatives. The work of teachers is, after all, an immanent causative factor in the education process and in the functioning of education. This is particularly important in the “Google” era, in the conditions of 3.0 civilization and 4.0 technology. The teaching profession needs to be redefined, in which the results of scientific research play a significant role.

New discoveries concerning learning and teaching are no less important. The results of research on the functioning of the brain, the significance of emotions and the influence of the environment on cognitive processes, the achievements of specialists in learning in the mediascape, and discoveries on artificial intelligence indicate the need for changes in education and new paradigms suggesting their directions. Sometimes research results come from external institutions. An example of this are the annual surveys conducted by the OECD, presented in annual reports, which consider results of research conducted among students, teachers, parents, educators, and tax-payers.
In the context of the importance of the results of research in many disciplines, one can expect that the reform of the education system is the result of discoveries and scientific projects. Unfortunately, experience, especially of the last reform in Polish education, proves that there is no accounting for the results of scientific research. They even point to actions against them. An example of this is the populist upholding of the compulsory school age (7 years), and an even more blatant illustration of the action contrary to the results of research is the elimination of an important element of the education system, ISCED stage III – secondary school, school for 13–16-year-old students. This means that ideological preferences, ad hoc political interests govern ideological changes. They are ruled by the resentments of those who carry out their intentions. The politicization of the reform of formal education is visible not only in the structure of the system, but also in the content of education. The universally binding core curriculum reflects the interest of the dominant political force.

The next criterion can be called temporal. It makes it possible to distinguish school reforms based on past experience and those oriented to the future. The first type of education reforms, even the most radical, is focused on school as the center of education. The selected elements of the “grammar of schooling” could be changed, but its structural and functional foundation is preserved. School is a meeting place for at least two generations, one of which is knowledgeable and responsible for its functioning, organization of established processes of socialization, education and upbringing. This type of reform can be called “the future of the past” (Harari 2018, p. 88). Change is immersed in what has lasted for a long time.

The second type of reform is oriented to a new paradigm of education. It requires liberation from the grammar of schooling, openness to new experiences, new ideas that are just emerging from various aspects of the present, new hopes and imaginations. Such temporal orientation of education reform has a chance to realize individual and collective emancipation aspirations.

It can exist as a bottom-up change. The bottom-up reform beginning with intentional changes in everyday life of school is an expression of the involvement of entities in the change process. The interests of individuals and groups participating in it are taken into account. This direction of reforming is a manifestation of negotiating individual and collective interests, creating intersubjective goals and taking into account the dynamics and specificity of the contexts of everyday educational practices. Education is then regarded as a living culture, and the effects of interrelations, ethics, human values and beliefs create the pedagogical practice.

In addition to the indicated bottom-up action of changing formal education, top-down initiation is more common. This direction of change may be the result
of new discoveries of science as well as political decisions. While reforming education resulting from the discovery of science is a process based on changing the consciousness of entities, rational, substantive justification of change, decreeing reform as an act of political decisions takes place through orders and control. Using the real or the usurped possession of power, the reformers, without taking into account needs and possibilities, local contexts, and often even against current scientific knowledge, impose change procedures. This strategy provokes various reactions of resistance: from simulating change to overt rebellion. Education from the general good turns into a tool in the hands of authoritarian power.

The presented, original approach to the typology of formal education reforms is not a complete list of criteria for their description and interpretation. Each reform can be described and explained using each of the listed criteria.

**“Black Swans” of education reforms**

Education reforms are not an example of an algorithm that guarantees success in every defined process. They are specific operations on the living organism without the use of anesthetics, although you can see the use of measures of anxiety vigilance, sensitivity to the consequences. This process reveals unexpected, unlikely facts and phenomena. At the design stage, the reformers may omit facts and phenomena that do not fit in the previous schemes. Even encountering them may raise doubts about their own perception, their compliance with reality rather than about the “truths” recorded in consciousness. This is particularly true of those who have acquired the characteristics of myths and stereotypes. As a consequence, there is a tendency to ignore observations that may threaten the existing knowledge. It can, therefore, be said that reforming education takes place in accordance with the logic of “White Swans”. This results in: imposing a uniform vision of the world (“all swans are white”\(^1\)), the tendency to generalize one’s own position and invalidate others (“there are only white swans. These black birds cannot be swans”), a sense of self-confidence and self-view and reducing epistemological vigilance, or rather increasing the amount and strength of epistemological barriers.

The process of reforming education is full of surprises. It has the characteristics of improbability theory. According to this theory of things, phenomena which in the light of present knowledge and human experience are impossible or have

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\(^1\) Such a “truth”, confirmed empirically, was in force until the discovery of Australia, where the newcomers saw endemic black swans.
no right to exist because they contradict common knowledge, common beliefs. They do not fit in the previous schemas, they are not expected, nor have they suggested in a convincing way their appearance. These “Black Swans” can be positive, arousing the need to know, real, existing objectively, or like the Black Swan – Odile– from Tchaikovsky’s drama, negative, with harmful consequences.

Participation in reforming formal education may result from the perception and personal understanding of the nature and specificity of Black Swans and the conviction of their sense, but it can also be a consequence of the belief that only White Swans exist and the need to act in accordance with the logic of their existence. This second approach may result from fear of losing existential security. Acting in accordance with the logic of a unified vision of the world and reducing the epistemological vigilance obscures the real processes and their intentions. At the same time, it generates consent for the changed changes. However, conformist acceptance of new tasks, adjustment orientation is what may be the worst from a reform perspective.

*Cui bono?*

Searching for the answer to this question can be arranged according to the impact of changes in formal education: from the broad spectrum to individual beneficiaries, personal school education entities. The simplest answer to the question – who is interested in change – could be: everyone and every citizen. However, it is not so obvious.

There is no doubt that the reform of the education system is, in its assumption, in the interests of the state. Without going into the premise of the reform or its temporal orientation, the decision of the parliament and the executive authority to implement changes in the whole system or in selected elements is aimed at achieving benefits in the entire country. It can, therefore, be said that reform is good for the state, for its prosperity and the well-being of its citizens. But looking at the last Polish reform (2016), especially at shortening the time of general education, it is hard to see any benefits. It can only help control people.

The beneficiary of the reform of the education system may be the local community, local self-government. As a result of the reform of the school system, a network of schools and educational institutions is created, workplaces for teachers and other school staff. The mechanisms of economic, cultural and social functioning of individual local communities arise or disappear. The above-mentioned lack of criteria for assessing the effects of the implemented reform makes
it difficult to find an answer to the question of how well it is for the good of
the local environment. One can only presume on the basis of the reactions of
representatives of territorial self-governments to the initiatives of the reformers.
They convinced and still convince in various ways that the reform of education
is a gigantic problem that does not guarantee fulfilling the assumed functions of
general education, including improving the quality of education.

The reform of the education system may contribute to improving the status
of teachers and other education employees, including education administration.
One should be aware of the problematic nature of this statement. Teachers bear
the greatest consequences of the change. They are the central link in the process
of reforming education. Real reform takes place in the classroom. However, the
personal costs incurred (emotional, intellectual, and often also financial) can con-
tribute to expanding professional and social competences, and sometimes even
discovering their own potential, triggering new aspirations. It seems unlikely that
reforming education would take place because of their good and their benefits.
It is difficult to be a participant in a change in conditions threatening existential
security and uncertainty of the rules of the profession.

Another group of potential, but in my opinion apparent, beneficiaries of edu-
cation reform are parents. The implemented changes are declared to be beneficial
for them, guaranteeing their aspirations for the school careers of their children.
In addition, the reform projects contain promises of parents’ participation in
educational decisions and supporting the educational role of the family by the
school. Observation of educational practices and formal initiatives of non-public
education indicates that these promises are in vain.

Students appear to be the most expected beneficiaries of changes in education.
Is it really so? Are the changes actually implemented for the child’s sake, for the
benefit of students, in their interest? It is worth remembering the “Black Swans”,
including the consequences of the fact that ten of the most wanted professions in
2010 did not exist in 2004 (Washburn, 2012, pp. 3–7)

Past-oriented education, detachment from everyday life, both in terms of con-
tent and form, nurturing and certifying grammar of schooling, re-ideologizing
curricula, information extermination and affirmation of obedience makes it
a process of realizing the sentences of Seneca the Younger: non vitae sed scholae
discimus. This means that students, participants in formal education, have little
chance to be beneficiaries of education reform.
Conclusion

Education reform is a process that can be considered from many perspectives. It is an element of each of the five scapes of contemporary culture distinguished by Arjun Appadurai (1990), namely: ethnic, media, technical, financial and ideological. It is a means and a center of shaping and developing each of these scapes and the factor of their integration. The education reform changing the school under the influence of the changing world – also changes the world. This statement suggests the answer to the question posed at the beginning: cui bono? It can be as follows: reform is for everyone's wellbeing. Under one condition: it takes into account the interest of all entities, both individual and collective, stakeholders and beneficiaries. This in turn requires a broad discussion and seeking a consensus on such important matters as the structure of the education system, education goals and the core curriculum. In this discussion, the voice of professionals, researchers and practitioners of education, is important. The answer to the question – in whose interest the reform is being carried out – should be sought before attempting to introduce changes. On the basis of convincing arguments, there is a chance to understand their essence and take an attitude towards them. In my opinion, the source of these arguments can only be the results of scientific research, reports on the state of education and the discovery of science, and not a populist response to resentments or political interests.

A special role is played by research conducted by independent research teams, by associations and organizations that are not subject to state funding. These conditions are met by autonomous scientific societies, including pedagogical societies. In my opinion, such societies, which associate voluntary participants, bear a large responsibility for critical response to initiatives (or lack of) of educational changes, so important on the local and global scales. The results of independent educational research conducted by scientific societies have a chance to become an interdisciplinary basis for bold and rational changes in education. The undoubted advantage of research conducted by independent scientific societies over those that are conducted by institutional research teams is their freedom at every stage of the research procedure: from choosing the subject of the research through chosen theory of description, interpretation and explanation to dissemination and dissemination of research results that can be a source of intervention in formally decreed changes. The experiences of members of scientific societies, both in the country and abroad, are interesting and helpful in this respect.

These harms, as results of in vivo experiments, on the living body of education and its subjects, are irreversible.
These words are not political manifesto. This is an appeal for independent, critical research, which can help to see “black swans” in processes of education reforms.

References