

Optimization in the System of Special Education - Introduction to the Problem

Various attitudes toward pupils' educational achievements are in the pedagogy constant elements of the analysis of actions taken by tutors and educators. They have a great impact on teaching; in field which is connected with analysis of the whole process aiming at reaching targets, and the most desired effects of educational process. In this stream, many problems are being created; mainly concerning reflections about effectiveness of process, the directions of changes, and primarily – subjective opinions about correlations between ideas and directions of education, which also have great impact on special education.

Beginning from the problem of optimization, its definition can be proposed in many various frames. In mathematical science it can be described as a function¹, which is a base for the theory of operational studies, which is also a scientific discipline connected with decision theory. This theory unable to choose the method and solution for specific problems related with making an optimal decision. In this frame operational studies are a set of mathematical and statistical methods which aim is to choose the most probable, valid or expected decision. Searching for different sources of this definition it is very probable to come across the technical approach – for example, the software optimization, described as an action which aim is to improve the computer program capacity, mainly to enlarge the speed of operations and to reduce the exploitation of computer resources(http://pl.wikipedia.org/wiki/Optymalizacja_oprogramowania_%28informatyka%29 – 25.03.08). In such approach it can be noticed two basic ways of software optimization:

- Optimization of program algorithm (reducing its length, the number of comparisons, simplification of mathematical equations, reducing needless loop, and so forth),

¹ funkcja $f: A \rightarrow \mathbb{R}$, gdzie elementy zbioru A są liczbami rzeczywistymi. Szukane: element x_0 należący do A taki, że $f(x_0) \geq f(x)$ dla wszystkich x należących do A (maksymalizacja) lub $f(x_0) \leq f(x)$ dla wszystkich x należących do A (minimalizacja) (http://pl.wikipedia.org/wiki/Optymalizacja_%28matematyka%29 – 25.03.08).

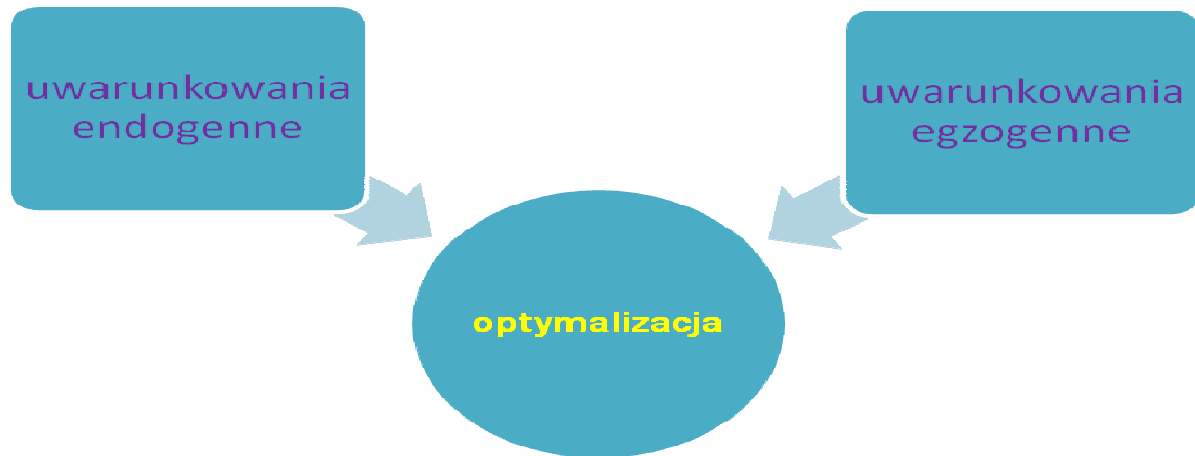
- The change of function used in the programs for more adjusted to specific operation, Very important, however more different, is economic approach, proposing optimization as gaining optimal (the very best) outcomes (what can be found in the descriptions – optimization of plans, trade optimization, optimization of the national economy), or searching with using mathematical solutions the most efficient solutions of more sophisticated issues (*Dictionary of Multimedia*, 2007).

Optimization in education

In polish educational system, especially in recent years in special pedagogy, optimization can be related to the definition of the *quality of life*, as something what goes above the approach which is limited to received outcomes. Optimization in special pedagogy is the protection of right development, full usage of the human development potential, including disabled people (D. Szarkowicz 2007, p. 345) more directed on fulfilling the social needs, and secondarily, through their fulfilling - individual needs, including disabled person. The lack of place for contact and mutual using ,in both sides (social and individual), the needs and abilities, which can be generally described as developmental.

Especially it occurs in visible disproportions between opportunities and their limited using, or the other way round - when occurs the lack of conditions, and gained opportunities (the example may be Ludwik Beethoven, A. Mozart or Rockefeller).

1. Optimization as individualistic approach



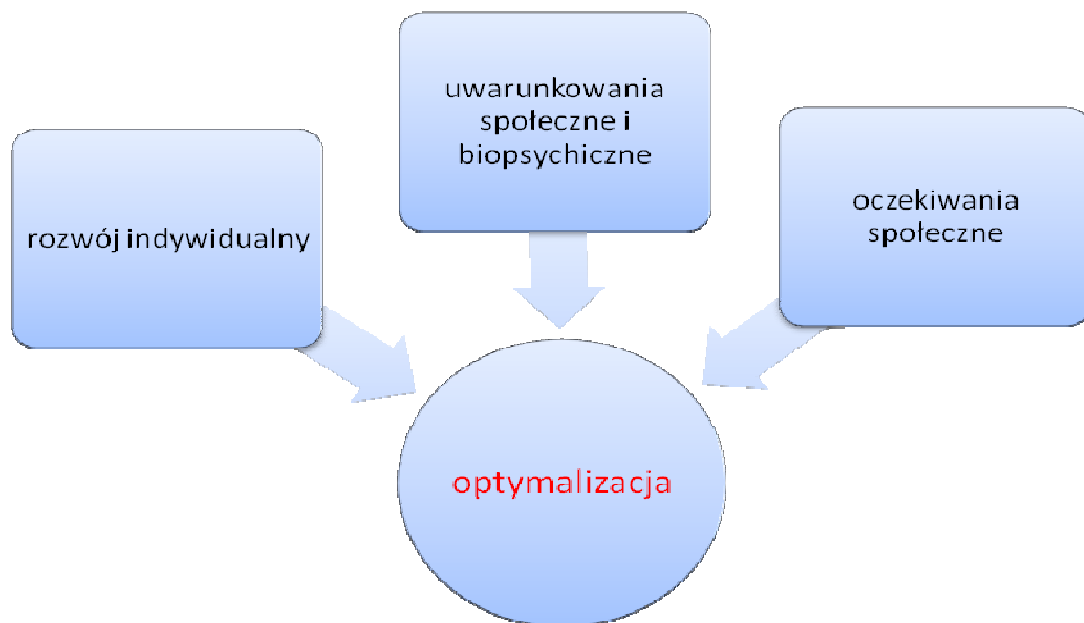
In this approach optimization is a directive, which is very individualized and less precise – describing optimum abilities in the permanent human development, what can point at its endless its development (for example, till the end of ones life), the unforeseen opportunities of this development in the range and direction.

On the other hand, it can be the searching of the best (optimal) opportunities of self-creation of the person , which can be the way of self-realization in he society. The example of such actions are trails of vocational preorientations as the way of searching the most preferable and individually described directions of self-realization.

The extreme approach can be setting person to self- realization in the ideal realization of the social and utilitarian aims - as the outcome of the ideological and political pressure on the individual. The example of such optimization of actions ca be reported deeds, or breaking the records, for instance, in the building industry or production, what characterized previous political system in the socialistic countries. Optimization was rather a challenge and direction of achieving political and economical aims, with lack of interests of individual needs, and as well with human abilities.

It is thought, that on the actual level of creating the theory of impact, as well as searching the abilities for achieving the social solutions in the range of realization of personal model of human development it is needed to modify and describe this definition in the new approach.

2. Optimization as social conditioning



Optimization in the system of special education

M. Grzegorzewska with collaborators mentioned the optimization of action taken in the relation to intellectually disabled, maladjusted aiming at giving them care (D. Szarkowicz, 2007, p. 344). Optimization, however, as a definition has its notion in the various approaches in the special education.

According to the assumption, we find its reference in various attitudes toward the problem of supporting the development of people who are involved in special education – in new approach, which is presented in Polish literature by Z. Sękowska (1998; however, this approach has not its reference in the basic definition on p. 18 - which limits action taken by mentally retarded).

This approach is characterized mainly by showing new perspectives in human approach, as an individual with specific needs, who has various psychophysical abilities - what allows special pedagogy to be shown as a method of supporting the development. Consequently, it is possible to see a problem more deeply as well as the opportunities, which are hidden in everybody - searching for one's optimal limits and areas of development. Different approaches to aims which are achieved in the range of undertaken actions toward or with disabled people (a different situation, classification as well as the description of the range of undertaken actions in this domain – for instance, ortopedagogia, which deals with disability or social discrimination) have their consequences also in the description of aims, to which particular systems are aiming by dealing with problems of people described as those outside the social norms. This approach allows us to refer to rehabilitation pedagogy promoted by A. Hulka (1988, p. 11), which aim is to restore the fitness or improvement in order to prepare to

independent living. Ortopedagogy, which is presented by O. Specka (2005, p. 23 – 24) as fulfilling particular educational needs which are present in the field of teaching and education. In the special approach presented in the special pedagogy, the evolution of approaches can be traced in the particular way, beginning from M. Grzegorzewska (O. Lipkowski 1984, p. 33) as a direction of compensation deficiencies, universal development and preparation to social life, through Z. Sękowska (1998, p. 18) as a rehabilitation of disabled, or changes in the approach to disabled people by integration and inclusion (particularly in A. Krauze 2004; W. Dykcik 2005; T. Żółkowska 2007) of systems created in the evaluation process as well social as economic or political reality.

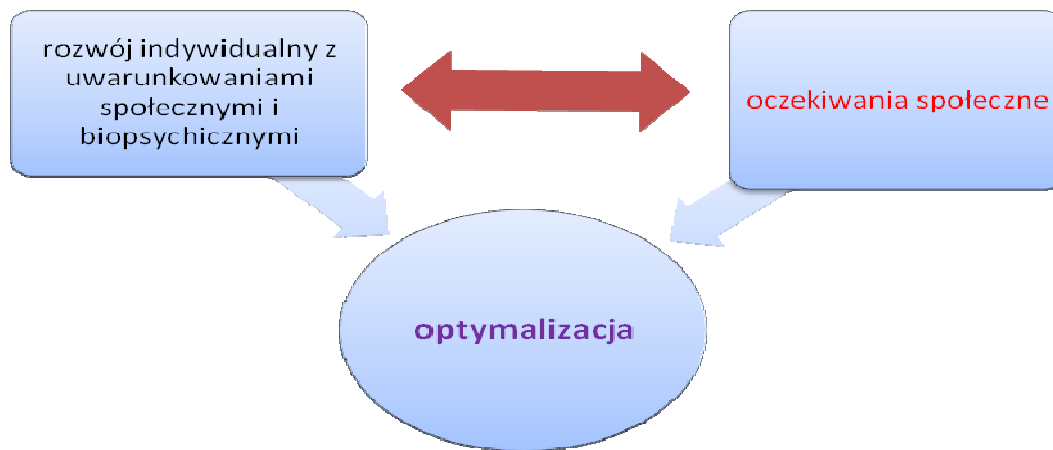
The change of approach to disabled person - from charitable, through inclusion to self - determining with multidimensional determinants becomes a possibility of individualized – however, accordingly to personalized approach - directed and focused on changes and possibilities of creative cooperation on individual and social spheres. It is a condition of a possibility of self-realization based on needs created from individual needs and opportunities related to social factor.

It can be stated that, it is a requirement for parity. Optimization begins to be not only:

- aspiration for realization the protection of individual needs(through, for example, restitution, fulfilling, compensating, development, preparation or rehabilitation
- aspiration for realization of society needs (e.g. through unification),

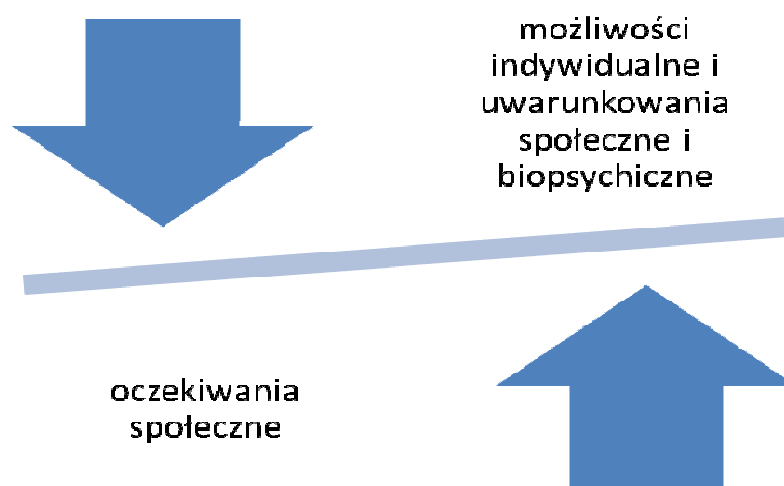
↳ however introducing individual into structured social situation, and therefore not only including, but also placing in the right structure.

3. Optimization as interdependance



Optimization is an action which goes away from imposition, to perspective co-creation , which aim is to create the situation which protects as well the direction of undertaken actions on particular levels of development as ensuring the sense of safety, stabilization, with opportunities to modify and making the changes in the area of individual and social factors. It is possible then to describe the optimization as equilibrium.

4. Optimization as a co-operation of systems



Very significant in the present dynamically changing social, economic and political situation is pointing at humanistic (not only humanitarian) dimension of action

undertaken toward people beyond the norms, as well as, undertaken discussion referred to person and humanity (especially, recently referred to biological and genetic approach).

The definition optimization should have its own reference to possibilities of using and placing human in the widely understood system - as a co-creator, unique, but essential to duration and social development. Dichotomy and interdependence can be present here. Human development, development becomes a condition of social development – creation of possibilities through society with using these possibilities by individual becomes a condition to social development - humanity.

The desire for optimization in special pedagogy has economical, political and humanistic aspect. It is a desire not only to equilibrium or integration, but mainly for searching the directions of common creation of field – without any selection or stigmatization, with the attitude toward possibilities not limits (which aim is to limit), but for creative searching common directions of undertaken actions.

The optimization is a change of direction of thinking for searching common and best solutions which ensure achieving the aim, which is the permanent social development of human in the society.

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