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Selected concepts and contemporary early childhood education program

The article presents concepts of programs for Classes I-III, paying particular attention to learning objectives in the education and upbringing of children. These set not only the direction to be taken at the level of method, but also the manners of their implementation in accordance with the proposal of the Ministry of National Education. The role and importance of constructivism in early childhood education is also worth noting. The various ways of interpreting constructivism can stimulate reflection and open up new possibilities with regard to what teachers themselves can do. Currently, the methods involved in working with children reflect teaching oriented towards constructivist ideas, which in turn, put great emphasis on the fact that learning conditions are greatly influenced by those people directly involved, namely: students, teachers and parents. Constructivists, perceiving learning as a process wherein the individual builds their own knowledge, stress the role of the individual learner. Critical analysis of the curriculum, the conditions relevant to its implementation, and the various ways in which the latter may be pursued, opens up the whole pedagogical discourse regarding working with children in Classes I-III as this pertains to the practical application of the statutory provisions regarding school practice. When it comes to the seeking the optimum solutions for didactic-educational work, and for effective upbringing, what is decisive is pedagogical competence, including awareness of the overall role played by the educating and teaching of children.

,, We should let children experience groping,
extend their roots, experiment
and drill down, find out and compare, (…)
let them go on voyages of discovery
- sometimes hard - but allowing to find
the food, which will be useful for them.”
Freinet, C.

Introduction

XXI. century is a period of intense social, scientific and information changes that have an impact on the overall functioning of Polish education. They signalize the need of constant modernization of education, updating, reinterpretation of views on the education of the youngest students. The challenge of education today is to teach six-year-old children at school.

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This requires a lot of projects, activities and organizational changes. In the social and scientific discussion, there are many questions concerning the necessity of school education if the six-year-olds. The concept of readiness presented in his works D. Waloszek (2003, 2014). Readiness to learn, according to her, is the result of any developmental outcomes, interactions in the family and preschool environment, their quality until reaching the so called "school age". About the school readiness in a multidimensional character, designated by the developmental tasks, wrote A. Brzezińska (1987) by making modifications to the views of S. Schuman (1962), she points to three main stages in the process of school maturity. Talents of the child and environmental and educational impacts, that affect the development of the entrepreneurship and child's own activity in different areas is the first step. Then, all of these factors influence the development of physical, mental and social development of the child. In the last stage, the level of development in these three areas determines the extent of the sensitivity and vulnerability of the child on the school type teaching. The school readiness is a term associated with the development of the child, but the criteria of readiness are derivative of the system of education: tasks, programs, conditions, requirements of the teacher and expectations of parents (Gruszczyk – Kolczyńska 1994, 2015). Considerations regarding school readiness, caused a situation where the education space between kindergarten and the school has a special importance. One of the assumption of lowering the school age is the maximum approximation of education and care standards in classes I-III of primary school with standards which children are exposed to when using the pre-school education. In the core curriculum of early childhood education (2014, p. 1), we read: *"general education in the primary school forms the foundation of education – the school gently introduces students to the world of knowledge, taking care of the harmonious intellectual, ethical, emotional, social and physical development (...) to ensure continuity of upbringing and education, teachers teaching in grades I-III of primary school should know the basis of pre-school education program"*.

The main aim of this article is to present some concepts that are the basis for constructing authorial programs of early childhood education and the implementation of program content, according to their assumptions. The inspiration for writing this article is the interest in contemporary curricula and conviction of the necessity of making discourses in teaching science in the field of educational theory and practice.

The early childhood education programs in the light of the theory of constructivism

The role of modern education is to create conditions for constructing students' image of the world. A child should experience and perceive learning about the world in relative entirety in

the everyday school reality. In the assumptions of enactive education program in the process of constructing knowledge by younger students, it is important for the child to get acquainted with and experience "integrated" reality, both in terms of cognitive, emotional, social and action driven aspects. Accordingly, the Ministry of Education proposed the teachers curricula for the first grade of primary school: *Experiencing the world* in the work of M. Kędra and *Signposts of multi intelligent education* by M. Zatorska.

In the program *Experiencing the world* of M. Kędra a variety of methods, techniques and teaching resources for exploration activities in the first stage of education are presented. It considers the latest research in the field of neurodidactics, the author also presents a multifaceted process of teaching the youngest pupils, which should correspond with the natural development of their personality. The program includes a lot of inspiration drawn from the views of the French pedagogue, C. Freinet.

Experiencing the world results from a desire to build a better education, which in the world of communication and technological changes will exhibit values such as creativity, trust and cooperation. The program of *Experiencing the world* takes into account the concepts presented in the book *Revolution in learning* of G. Dryden and J. Vos. The researchers show how great role in the learning process of a man plays a period of time after the child's birth until the time when he finishes ninth year of life. In this publication, there are a number of interesting insights that undoubtedly allow to see the impact of the first years of life of the individual to the process of learning and acquiring knowledge. Authors (2000, p. 226) argue that fifty percent of the human capacity for learning is being developed in the first four years of life; another thirty percent evolves to eight years old. During these critical years the nerve pathways are created on which the whole future learning ability is based. Children are the best pedagogues, and parents are their first teachers. Children learn what they are experiencing with all their senses, so they must be properly stimulated. Our houses, beaches, forests, playgrounds, museums are excellent places for realizing this type of aims. Simple physical exercise can greatly assist the ability to learn. Learning, including learning to read, write and count, can and should be fun.

Returning to the program assumptions, the author of an innovative for Polish school program is leaving the concept of a formalized training model for constructive and dialogue education. In the program *Experiencing the world* the teaching content, in the limits of different areas of education, are assigned to the next classes. However, the final decision as to the manner of its implementation is left to the teacher, who refers to the assumptions of the *Fundamentals of the general education curriculum for early childhood education.*

In turn, M. Zatorska in the *Signposts of multi intelligent education* stresses that education aimed at children is based on respect for individual differences between them in all spheres of intellectual, emotional, social, mental and physical development. The Russian psychologist L. Wygotski hypothesized that development processes do not coincide with learning processes, that development processes are going in the wake of the learning processes that create a zone of proximal development. Zone of the current development of a child is a map of well mastered competences and maturing functions, and the zone of proximal development is an area to acquire competences that lie within its capabilities, while having a supporting social surrounding. This model of education is based on a subjective treatment of a child, showing respect, support and giving directions. Properly understood educational process assumes that the teacher not only provide the material specified in the core curriculum of general education, but also shows an awareness of the needs of the individual student, his intellectual potential, he can select the methods, forms of work and teaching aids, arrange a common educational space. It all directs the way student can achieve success. Contemporary Polish school is to prepare the student to independence, including independent learning, creating the right climate and friendly environment for development.

The *Signposts of multi intelligent education* program is based on the idea of constructivism and the theory of multiple intelligences of H. Gardner. Due to the fact that the Polish early childhood education seeks to ensure that teaching and learning, which support the development of the child, was based on a cognitive and socio-cultural constructivism and teaching should refer to the implementation of the program content by the teacher, we will introduce the reader to the assumptions of this trend. Constructivism is the process of building by an individual the actively acquired knowledge, to which a child gives a new meaning and significance. The only reasonable educational giving meaning is the independent way of giving meaning. The teacher is a competent organizer of the material environment, called a learning environment, that is conducive to a student research. D. Klus – Stańska (2002, p. 85.; 2006) formulates the main thesis of the constructivist teaching. According to her, learning is not about assimilating other people's ideas, but about the social constructing of the meanings. This thesis has its effects in thinking about the resources of knowledge as well as in the dialogue competences that serve this negotiating of meanings. Didactics oriented on the development of dialogue competence and on providing students with the opportunity to build complex, dialogically open, flexible meanings is looking for opportunities for the clash of perspectives, strategies, positions, points of view. According to L. Vygotsky (1971) constructing the meanings of given experiences requires mastering not only the language but also knowing the cultural context in which that

language is used. Developing cognitive structures are a cultural product arising through relationships with other people, especially in the early stages of development with their parents. Vygotsky uses the term: cultural tools, referring both to technological as well as psychological tools, on the one hand these are books, clocks, bicycles, calendars, pens, and on the other such concepts and symbols as language, literacy, math, research theories, and also such values like: speed, power, wind.

Another interesting theory is constructivism in the concept of Polish pedagogue S. Dylak, who for a proper support for this theory of knowledge considers, on the one hand the neurobiological theory of brain functioning, on the other, pedagogical concepts indicating the effectiveness of pedagogical action rules derived from assumptions of constructivism. The assumptions of constructivism emphasize the process by which a student creates and develops own knowledge. In practice of these assumptions, the directive is to create a curriculum that will be "a challenge to the current understanding of the world". An important issue in the concept of S. Dylak is the neurodidactics, meaning brain-friendly learning. Practical concept of this theory is a source of interest of contemporary teachers of early childhood education.

In recent years, a lot of different characters and forms of constructivism appeared. Constructivist positions differ with each other causing many contradictions even on the basis of terminology. M. Wendland presented a theory of constructivism, mentioning many "constructivism" or about the "many faces" of constructivism. It is possible, however, to indicate a certain set of assumptions common to all of them. Constructivists are convinced that objects occurring in the world do not exist independently of the knowing subject. They are not so much discovered by them, but rather constructed in the cognitive process. Their conceptualization has an instrumentally useful character. It allows to master the world and, as a consequence, effective operation (Sikora 2007). In the literature one may encounter different opinions, according to which the origin of constructivism goes much deeper than just in the seventies of the twentieth century. What is true, sometimes from one extreme (minimal) often falls into another (maximalist) calling as "constructivist" thinkers so distant in time and the ideology of constructivism, like, for example. Heraclitus, Sextus, Empiricus, Benedict Spinoza, and Friedrich Nietzsche.

It is worth to considered an intermediate position, moderate, according to which the sine qua non of constructivism is the transcendentalism of Immanuel Kant, which can be considered as the oldest precursor and inspirer of constructivism.

In turn, M. Wendland believes that it is worth to take a look at the newer and more extensive proposal by T. Hug in 2004. T. Hug lists the following varieties of constructivism and their

main representatives: 1. philosophical (HR Fischer, N. Goodman), 2. radical (or cybernetic, E. von Glasersfeld H. von Foerster), 3. system (N. Luhmann PM Hejl), 4. neurobiological (H. Maturana, F. Varela, G. Roth), 5. socio-cultural (P. Janich, SJ Schmidt), 6. constructivism in the sociology of knowledge (P. Berger, T. Luckamnn P. Bordieau, K. Knorr-Cetina), 7. socio-psychological (K. Gergen), 8. psychological (P. Kruse, M. Stadler), 9. psychotherapeutic (L. Ciompi, F. Simon, P. Watzlawick), and 10. educational (Hug, 2004). M. Wendland also points to three main varieties of constructivist perspective: 1. social constructivism (including Piaget, Vygotsky, Papert), 2. cognitive constructivism (cognitive-oriented; radical constructivism, Schmidt, Glasersfeld) and 3. epistemological constructivism (methodological placed in the areas of sociology and philosophy, Berger, Luckmann, Kamlah, Zybertowicz, Kmita, Fleck, Kuhn).

The first of the proposed varieties is social constructivism. This variety is most inspired by the work of J. Piaget and L. Vygotsky and marks it most in psychology. Constructivists, referring to the views of J. Piaget, Vygotsky, J.S. Bruner, insist on building intrinsic motivation for learning. Among the varieties of constructivism, there are several opposing trends, however, all representatives of this concept are guided by the assumption that *"knowledge is to be active and every cognitive action leads to personal transformation of incoming information"*. Many constructivists assumes that the subject of constructing is any knowledge at all. After J. Piaget they are taking the concept of adaptation. Knowledge as a product of a man, is not so much an adequate "reflection", mapping the world, but rather a creative adaptation to it. Knowledge understood in constructivism has eminently pragmatic character. First, a theory is created, a hypothesis, a world, and then the questions are asked: how it is useful for me in the given area? What of the empirical data and the results of empirical research can fit into my theory?

Radical constructivists remain relatively sceptical of "social constructivism", especially in the version proposed by N. Luhmann, because they put the emphasis on individual human cognitive skills: knowledge is referred to herein as a self-organized (autopoietic) cognitive process running in the human brain structures. Another interesting theory is presented by S. Papert one of the world's greatest authorities in the field of education and in Poland known only as the creator of the language Logo. This eminent mathematician, cooperated for five years with J. Piaget. According to him, constructionism says that *"children don't get ideas they make ideas"*, but individuals who learn, create new ideas especially effective when they are actively engaged in constructing various types of artefacts - it could be a robot, poem, castle of sand, computer program, or anything else, that one can share with others and what can be subject to analysis and reflection. (Walat 2007). Constructionism places equal emphasis on three aspects

of cognitive development: mental (knowledge construction processes in the head of pupils), social (learning through cooperation and discussion with other people) and material (constructing material representation of abstract ideas).

Further in his article, A. Walat described the eight ideas of constructivism according to the concept of S. Papert. The first big idea is a learning by doing. We learn better when learning is part of practicing of what we are truly interested in. We learn most effectively when we can use what we have learned, to meet some current needs or desires. The second big idea applies to technology as building material. With technology, we can create much more interesting things, and by creating them, we can learn much more. This applies especially to digital technology: all machines, including for example computer-controlled Lego.

The third idea is the idea of a hard fun. We learn and we work best when we enjoy it. But fun and enjoying does not mean "easy". Hard fun gives you the most satisfaction. Our sports heroes are working very hard to be the best in their discipline.

The fourth idea is the idea of learning how to learn. Many students believe that the only way to learn is that someone has to teach you. This is the reason for failures in school and in life. Nobody can teach you everything that you need to know. You have to take responsibility for own learning.

The fifth idea: give yourself adequate time to complete the task. Many students in the school are accustomed to the fact that someone tells them every five minutes or every hour: do this, do that, and now this. If someone does not dictate them what to do, they start to get bored. In life everything is different: to create something really important, you must learn to manage own time alone. This is the hardest lesson for many students.

The sixth idea, the most important of all: there is no success without failure. Nothing really important works the first time. The only way to achieve success is to carefully analyse what and why is not functioning properly. To succeed, you need to break free from the fear of mistakes. In the most recent assessment assumptions, one record has been introduced: the student has the right to make an error.

Seventh idea: do unto ourselves what we do unto our students. We learn throughout our lives. Although we have rich experience of working on multiple projects, each one is different and usually when working on another one, we cannot say in advance with all the details how it will work. It amuses us what we do, but we know that it is a hard work. Every difficulty is an opportunity to learn. The best lesson we can give to our students is to show them how we struggle to learn.

The eight great idea: we are entering the digital world where knowledge of digital technology is as important as reading and writing. So learning about computers is crucial for the future of our students. But the most important goal is to use them HERE AND NOW to learn other areas of education.

It turns out that among children taught by constructivist scholars, a higher frequency of mutual contacts has been reported, as well as greater resource experience. The study of genetic psychology of J. Piaget shows that the relationships which exist between effective (practical) and mental operations, are much stronger than it would seem on the basis of an assessment of an adult. J. Bruner described the representation or representation system as a set of rules in category of which, a unit creates some idea of the events, which they encountered. There are three types of representation systems, operating under the intellectual development of a man. They are: enactive, iconic and symbolic representation. The development consists in mastering the sequence of these three forms of representation, along with a partial translation of each to the other. Teaching must therefore be tailored to the child's development. In turn, in the Montessori educational system, the condition of the proper development of a child is to take into account in the process of bringing its mental properties and giving it proper educational space and friendly environment. Organized environment is the one that, on the one hand, meets the growing needs of the child, on the other hand allows him to realize them freely and without hindrance. Such environment favours developing and strengthening children's activities, shaping the talents, skills and interests, triggering internal motivation to act and learning, becoming more independent.

Cognitive theory in the program contents

In today's early childhood education programs, it is worth to appeal to many cognitive theories when selecting the content of education. The theory of knowledge and teaching of L. Vygotsky is very interesting according to us. It assumes that in the process of children's education, the most important element is to develop learning skills, or preparing for use of their brainpower. The development of a child never goes with school teaching as a shadow behind the subject. Therefore, school achievement tests do not reflect the course of children's development.

Psychologists after many years of research came to the conclusion that for children to become successful at school and in adulthood they should develop in the early years of childhood three key skills: self-regulation, cognitive and communication skill. The skills of self-regulation - the child learns the skills to create and implement plans and the necessary

behaviours: body movement or stillness, focus, determination of behaviour, coordination of internal and external stimuli, determine the limits of one's body, control over their own behaviour. By forming such behaviours, a child acquires the ability to manage their own thoughts in a conscious, purposeful and planned way in order to proceed to more difficult tasks. A unit with a developed self-regulation can learn "on demand": he learns when the teacher requires it, learns what the teacher said, a plan of the teacher becomes his plan, is interested and willing to try and take risks, willing to learn for own pleasure, is ready to sacrifice and perseverance.

Cognitive skills - include the intellectual and creative development. The program "Key to Learning" develops all kinds of intelligence in a child: mathematical-logical, physical, linguistic, visual-spatial, musical intrapersonal (reflective), interpersonal, natural. In addition to these areas of intellectual development, program also focuses on developing creativity or ability to find original solutions to problems.

Communicative skills - is acquiring the child's ability to understand others and be understood. This is achieved by: working in pairs, group reflection, teamwork, shared success, shared fun, or impersonating a child in the role of the designer, the inspector, the builder.

A reference to the cognitive and constructivist principles are the tasks stored in the core curriculum:*"The task of the school is to implement the curriculum focused on the child, on his individual development and learning opportunities (...) developing child's cognitive predisposition, shaping in a child a positive attitude to learning and developing curiosity in learning about the world around them and the quest for truth. The purpose of early childhood education is to support the child's development"* (Core Curriculum, App. 2, p. 6).

About personal experiences of a child, forming the building blocks of "everything" and the concepts and skills wrote E. Gruszczyk – Kolczyńska, claiming that everything starts from experience, and during their processing, a child should talk a lot. These concepts emphasize student activity and dynamism of differentiated ways of teaching - learning, for which called, among other things, J. Dewey and E. Claparede. Modern teaching primarily draws attention to the student's research process in which, during testing, his mind creates new concepts, acquire new experiences, skills. The content of education, recorded in the latest core curriculum of 30.05.2015 is of a functional character, which emphasizes the importance of the students in the school. The teacher plans the teaching way. His autonomy in this regard is assumed.

Methods of teaching - learning take into account such activity of the students, which contain movement, handling and instrumental activities. In teaching mathematics, a child alone

performs the way from specific activities, observing and analysing its results to symbolic representation. This procedure is called pictorial, preliminary mathematization of the real situation (Gruszczyk – Kolczyńska, 2014). Early school education is a fundamental and propaedeutic developmental, educational and instructive stage, which develop in the minds of children a kind of intellectual schemes which they will use for the rest of their lives. The ability of classification, causal-effective reasoning and prediction of what might happen is being shaped.

Didactic - educational program trends

Assumptions of the curriculum concerning the smooth transition of the child from kindergarten to the school refer to the concept of J. A. Komeński, who believed that the main aim of pre-school education is to prepare for school. This Czech pedagogue presented in the *School of motherhood* the relationship between learning in pre-school childhood and learning in school childhood. His thoughts are included in the modern concept of starting school.

In the critical discussion on the program of early childhood education D. Waloszek (2014) states that the content of the curriculum for pre-school and school education do not have a clear reference to the philosophy of a contemporary man. Against this background, the criticism of eclecticism, confusion, contamination meanings is founded. The record about maximizing the development potential of student's individual needs, is at odds with focusing education on social skills, important for success in life of modern man. The above criticism justifies to say that modern culture is more often called a culture of narcissism, which resulted in a situation where the development of educational thought is connected with the cult of the individual and excessive expansion of a strong ego. Therefore, in addition to the discussion about the method, we should start the discussion of the subject the student. In this pedagogical discourse, especially important are pedagogical researches conducted in Poland by K. Węc. When seeking solutions to today's education K. Węc (2012) hypothesized that we should come to some kind of initiatory experiences. The reflections are based on the context of Lacanian psychoanalysis, which assumes that entity and its desire set up a centre of educational activities, can bring positive results. Experience, agitation and initiation have a chance to stop the alienation of the subject and withdraw from inter subjective relationships. The challenge for education is the involvement of subject in the educational process and to achieve its desire to demand - not only in the pursuit of the intended subject of knowledge.

In the concept of pedagogy the difference in the perception of the so-called real communication in visible, assuming that the purpose of the entity involved in the education system is the interest in the subject of knowledge, the meaning of which was determined by self-realization, self-development and self-actualization. The teacher could transform the demand of "teach me" in demand: "let me learn" or "do not make me" into "let me create". Thus, the intervention has to result in a question arising and circulating between student and teacher (Węc 2014).

Teacher in light of contemporary trends in teaching and education is to induce a juvenile to speak, to multidirectional communication and dialogue. According to the Recommendation of the European Parliament and of the Council of 18 December 2006 on the key competences for learning throughout life (2006/962/WE) developing key competences, both in the context of school education and learning strategies throughout life has become one of the most important priorities for education. Communication in the mother tongue is the ability to express and interpret concepts, thoughts, feelings, facts and opinions in both oral and written form (listening, speaking and reading and writing), and to interact linguistically in an appropriate and creative way in a full range of societal and cultural contexts - in education and training, work, home and leisure. Language competences are referred by psychologists as the basic. As it is rightly observed by K. Węc (2012), the development of language and social competences will be possible only if the student finds themselves in society, by reference to the *Ideal I*, which constitutes its relationship to other people. L.S. Vygotsky is the creator of the theory of the development of the human psyche, according to which mental development is conditioned by historical-social processes. This historical - social nature is primarily a language, whose characters are formed in the course of human social activity, enabling the development of human thought and transforming, in this way, the external forms of behaviour in the interior forms. According to Vygotsky (1971) speech is originally created as a tool to communicate with the surrounding people. It was only later, when it is transformed into inner speech, it becomes the main way of his thinking, his inner mental function. The research carried out by Baldwin, Rignano and Piaget have shown that at first it starts from the dispute in a childhood and need to justify own thoughts, and only later a child is starting to make considerations, as some kind of background for inside activity, which feature is that it teaches to realize and check own thoughts. *"By nature, we are happy to believe word for it -* says J. Piaget *- and only in the course of social intercourse there is a need to verify and confirm a thought".*

The introduction of the theory of L. S. Vygotsky as a method of teaching in early childhood education undoubtedly supports the development of children and thereby becomes an effective

method of teaching. Education should stimulate the initiative, grow interests, stimulate the child readiness to undertake new activities, and develop the ability to self-education and self-improvement. In the face of excessive focus of teachers on the program, which, inter alia, results from social expectations in the context of the highest EWD, rankings of schools, the test results after completing a given level of education, external evaluations – upbringing remains a neglected sphere of education. D. Waloszek believes that *"there are indications that pedagogy is in a gridlock. It cannot remain in the circle of tradition, is not able to come forward. Postmodern ambiguity has led educators to withdraw from the main object of study, which was, until recently, upbringing. This situation resulted in dysfunctions of schools in this area. Few have proposed solutions, for example, B. Śliwerski"*.

One should also not ignore the on-going dispute about the shape of early childhood education. Unsatisfactory learning outcomes in Poland brought back the discussion on integrated education - the main form of early childhood education. Calls for a separation of mathematical education of integrated education is heard more often. A supporter of this concept is E. Gruszczyk - Kolczyńska.

Program trends mentioned above are especially recommended by the Polish Ministry of National Education. However, we should not forget about the directions in search of innovative methodological concepts included in pedagogy as an alternative education. These will include school based on the Montessori or C. Freinet system, or in a project of the Wroclaw School of the Future.

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