

Original Article

Physical activity as an educational dimension in the contemporary pre-school curricula in the world and in Serbia

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Published online: February 15, 2017

(Accepted for publication December 27, 2016)

DOI:10.7752/jpes.2017.s1007

Abstract:

The functioning of every educational institution is determined by the curriculum whose orientation shapes the aims, content, strategies and procedures of accomplishing the process of education in a special way. One of the aspects of the development that occupies a significant place in the pre-school curriculum is physical education and its activities. As the organization of physical activities is different in educational institutions for pre-school children in Serbia and abroad, the paper offers an analysis of physical activities in the curricula of the pre-school institutions in Canada, the USA, Montenegro and Serbia. The comparative analysis of the selected curricula leads to a conclusion that the organization of physical activities of children in our pre-school institutions needs to be innovated in some ways. In order to achieve a better quality of the organization of physical activities of pre-school children it is necessary to innovate and strengthen the pre-school curriculum of the Republic of Serbia in the following aspects: motivation and development of competences of pre-school teachers in charge of children's physical activities; organization of activities adapted to the child's individual and current competences and abilities; development of children's cognitive knowledge with respect to physical activities, as well as the significance of physical activities for the development and health of the body; and most importantly, children's success in the activities that they perform.

Key words: *physical activity, pre-school age, innovations, contemporary curriculum.*

Introduction

Constantly increasing differences in the material and social sense between the "natural" setting and the urban setting where today's man lives also increase the significance of well organized and permanent procedures in physical education. Since the urban environment on the one hand imposes many limitations and, on the other, is quite comfortable, this decreases the need for motion as well as the immunity of the human body, which necessarily implies a demand for the protection against unfavourable influences and securement of favourable conditions for a normal physical growth and development, as well as the improvement of physical and mental health of children at a young age (Kamenov, 2006).

The significance of physical activities was also recognized in the *Basis of the curriculum of the educational work with pre-school children* (Osnove programa predškolskog vaspitanja i obrazovanja dece uzrasta od tri do sedam godina, 1996). All the segments of the General bases of the pre-school curriculum are oriented towards the humanistic understanding of the child's nature and his/her physical and spiritual development. The essential determinant is that the child is valuable in him/herself, that he/she bears potential for development in him/herself, and that he/she is also a factor of his/her own development, socialization and education. The General bases of the pre-school curriculum start with a child as a physical, cognitive, social and affective being who is active in the process of education. The process of education designed in such a way is based on: positive motivation, a curriculum that takes into consideration the age and developmental abilities of the child, and the evaluation of the achievement.

Since the General bases of the pre-school curriculum do not proscribe educational content but only sketch it, it is up to the institution and the pre-school teacher to define it through making a curriculum and specifying educational aims. In addition, the ways of accomplishing aims are different among the models of the curriculum and the only demand that is imposed in that respect is that the aims should not be contrary to the basic tenets of the General bases of the pre-school curriculum. When it comes to the educational content, the General bases of the pre-school curriculum do not present developed and specified content of all activities, but only indicate their more general categories, which should be used as a basis in the making of the curriculum while also having in mind specific children and the conditions of the educational work with them (Osnove programa predškolskog vaspitanja i obrazovanja dece uzrasta od tri do sedam godina, 1996). In accordance with that, physical development and all its activities (physical, perceptual, health-hygienic) occupy a significant position among the aims, tasks and activities that contribute to the aspects of development both in our curriculum and in current curricula of the institutions around the world that deal with the education of pre-school children.

Physical activities at the youngest age have physical, cognitive and affective advantages for the overall development of the child. This decreases the risk factors of the development of various heart diseases and obesity, which are increasingly more wide-spread among children. Physical activities build a strong musculature of children and, of course, promote mental health that decreases anxiety and depression, thus creating a strong foundation for the general mental and physical state. From the pre-school age until the end of high school physical education represents part of the total education of every child. If it is planned well and implemented by experts, physical activity brings pleasure to children and is beneficial for their growth and development in different ways. Contemporary pre-school curricula are the ones that should comprise aims, tasks and outcomes of what children should be able to do at a pre-school age. For that reason the field of our interest is extremely important for the pre-school curricula and it seems that everywhere in the world the awareness of the multiple usefulness of physical activities has increased and that it is much greater than in our country.

Examples of good practice – physical activity as an educational dimension in the institutions for the education of pre-school children

Organization of physical activities in pre-school institutions in Canada

Physical activities in pre-school institutions in Canada have three main dimensions that are defined through phrases “in movement” (all kinds of movement), “about movement” (understanding and application of movement) and “through movement” (cooperation and responsibility through play). It can be said that this kind of organization is hierarchical in character, i.e. that each subsequent dimension is an extension of the previous one. The outcomes of the first dimension that should include all kinds of movement are: developed psychomotor functions of the child; the child that actively participates in the activities organized by the pre-school teacher; the child that is able to move in various ways and to correctly demonstrate the required movement. After learning these basic forms of movement, the following dimension should enable the understanding and application of movement, where the child is expected to develop the cognitive dimension with an emphasis on the process of learning the rules, procedures and concepts of a certain game or a physical activity. After this the child is able to assess the attitudes and behaviour, both their own and that of other participants in the game. At this level the child should use critical and creative skills to learn certain types of movement and he/she should be able to apply those same movements in other games or forms of physical movement. The last and highest level of tasks of children’s physical activities in the pre-school institutions in Canada implies the development of the affective side of children; learning socially adequate behaviour and, what is specific and different in this curriculum in comparison with others, developing self-respect and self-confidence, the ability to make decisions, cooperation and respect for others. Unless these personality traits are developed at an early age, they will not be part of the adult person’s personality (Physical Education, Kindergarten Curriculum Guide, Interim Edition, 2010).

Physical activities as aspects of the development in the pre-school curriculum in Canada comprise the following areas: rhythmical activities; orientation and use of one’s own body. Children also have many different opportunities for individually adjusted exercises in accordance with the needs of the group to which the child belongs, his/her developmental level and the child’s personal needs. The connection between the individual and the group is emphasized and cooperation and competition are seen as important concepts of physical activities in the pre-school age. Individual aspects of cooperation, i.e. cooperative activities include taking risk, responsibility and compromise, whereas aspects of competition imply abiding by the rules, boundaries, development of competitive spirit, acceptance of failure (Physical Education, Kindergarten Curriculum Guide, Interim Edition, 2010). Physical activities also provide social interaction since the youngest age. Children learn how to belong to a group and how to compete against the other group. In addition, they develop skills of communication, listening, receiving and giving feedback, as well as receiving constructive criticism. In the Canadian curriculum, in the aspect of the development of physical activities of pre-school children, the emphasis is on its inclusivity. The curriculum should be adapted to the needs and capabilities of all children regardless of their skills and abilities. All children should be integrated and special care is taken of children with special needs (Physical Education, Kindergarten Curriculum Guide, Interim Edition, 2010). Physical activities are used as a medium of learning other sciences and thus they should be applied since the youngest age and they should be used for easier learning. When it comes to evaluation in the Canadian curriculum, its purpose is diagnostic in order to continuously keep track of the progress, to report on the results, to motivate both children and pre-school teachers, and finally to improve the curricula of physical activities in pre-school institutions.

Within physical activities in pre-school institutions special attention is devoted to the safety of children. The very nature of the pre-school child makes safety a very important issue. Small children are not able to see the effects or consequences of an action and are not aware of taking certain risks. For that reason great responsibility rests on pre-school teachers to secure safe conditions for physical activities.

Organization of physical activities in the pre-school institutions in the USA

A model of the curriculum of physical education (Curriculum Frameworks and instructional resources division instruction and learning support branch) for pre-school institutions in the USA (here the example of

California Public Schools is analyzed) issued by the California Department of Education in 2011 comprises learning English, mathematics, history, social sciences, natural sciences, art (music, painting, theatre...), health, world languages, and physical education. The curricula of physical education emphasize the importance of physical activities and personal fitness as well as the understanding of their importance for people's lives. Basic movement skills learnt at that age are a basis of all further physical activities and this stresses the role of pre-school teachers, who should focus the child rather on what he/she can do than on what he/she cannot do. This is how pre-school teachers lay the foundation for the children's positive attitude towards physical activities through life. Special care is taken of physical characteristics of children at that age, i.e. their growth, weight gain, musculature, stamina and coordination.

Such a curriculum connects five comprehensive standards which together represent the essence of skills and knowledge necessary for children to remain physically active and to lead a healthy way of life. Each of the five standards projects what a child should know and what he/she should be able to do (Curriculum Frameworks and instructional resources division instruction and learning support branch, 2011):

1) First standard – children should be able to display motor skills and patterns of movement necessary to perform various physical activities. Then, they should be able to move in a straight line, from side to side, back and forth, with stops, up and down. They should also use a variety of paths when moving: curved, straight, zigzag, and they should be able to move in relation to various objects: above and below them. Children do locomotive movements: walking, running, jumping, hopping, skipping, galloping. Non-locomotive movements include: bending, stretching, twisting, turning, swinging. Children also learn to use various objects: different kinds of balls, light balls, balloons, sticks, gymnastic ribbons, etc. They also learn to move in a file, to change direction at the teacher's signal; they are able to differentiate the speed of motion; they make forms with their bodies using their hands, legs and torso; they maintain balance; they are able to jump over a certain obstacle several times in a row; they use the back-and-forth and side-to-side motion; they are able to throw a ball at a target and to kick the ball; they are able to dribble to ball by bouncing it off the floor. All these activities include simple, basic forms of movement.

2) Second standard – implies cognitive knowledge on skills from Standard 1. Pre-school children learn terms connected with motion. Besides the names of locomotive skills (jump, skip, etc.) they also learn spatial relations such as below, above, over, etc.; they learn about space where the physical activity is taking place and about the parts of the body. Children can differentiate above and below, left and right, back and forth, side to side; they can identify and use space and boundaries; they are able to correctly name parts of their body.

3) Third standard – children learn to evaluate and maintain the level of their fitness in order to maintain and improve their health condition and improve their abilities. The aim they should accomplish is doing physical activities three to four times a week in order to increase their aerobic abilities and stamina. The children's muscular strength and stamina is developed through continuous physical activities that take place in the playground through various moves, dances, etc. Children should also learn adequate exercises to warm up before physical activities as well as stretching exercises after physical activities in order to prevent possible muscular injuries. They should see participation in physical activities as enjoyment and challenge.

4) Fourth standard – children show knowledge on the concepts of physical fitness, principles and strategies of health condition when doing physical activities. The relationship between standards one and two is similar to the relationship between standards three and four because standard four should provide children with cognitive information on standard three. Children learn the names of internal organs, how muscles are used when climbing, jumping, etc. and how muscles need to be stretched in order to stay healthy. They learn that the heart is a muscle which works with lungs and sends oxygen to other muscles in the body. Pre-school children should learn about the role of nutrition and hydration of the body in the preservation of health and how important it is to do sports.

5) Fifth standard – concerns comprehensive knowledge that children have when leaving the pre-school institution and it includes the display and use of psychological and sociological concepts, principles and strategies which they apply in learning and doing physical activities. At this level children already enjoy movement and gladly participate in physical activities. Pre-school teachers indicate positive aspects of physical activities and motion so they would become a pleasant and good habit during life. Pre-school teachers' task is to recognize in children if they prefer individual or group sports and, in accordance with that, adapt their pre-school activities so each individual child satisfies their needs when it comes to this aspect of development. Insistence is also on the successful participation of children with special needs in physical activities in pre-school institutions. Pre-school teachers should have adequate knowledge and skills in order to enable all children to become included in physical activities in accordance with their abilities. The use of various strategies when giving instructions and helping children to reach their maximum are the basic tasks of pre-school teachers when they have children with special needs in their group.

Organization of physical activities in pre-school institutions in Montenegro

According to the "Curriculum for the fields of activities in pre-school education" (Program za područja aktivnosti u predškolskom vaspitanju i obrazovanju) published by the Educational Institute of Montenegro, when

it comes to the field of physical activities, it is emphasized that experts in physical education should focus primarily on the operationalization of physical abilities of children and their motoric improvement and that they should in no way lose sight of the fact that these human features (as well as success in their transformation) are tightly connected with children's morphological development. In other words, just like motoric abilities are developed according to certain natural laws, in the same manner biological development also has its laws.

General aims of physical and health activities of pre-school children are: satisfying basic biological, mental and social needs for movement and play; development and maintenance of movement potential of children; development and formation of the correct attitude to and relationship towards physical education and the creation of a permanent habit of living a healthy life and a need for physical activities to become part of daily life and culture of living (Program za područja aktivnosti u predškolskom vaspitanju i obrazovanju (od 3 do 6 godina), 2011). The aims of the curriculum imply:

a) Discovery and mastery of oneself, where the child: acquires, develops and establishes the habits of personal hygiene, a hygienic way of life, cares for the hygiene of the environment in which he/she lives; develops the habits of movement and uses them to control space, spontaneously expresses him/herself in movement, expresses his/her own emotional states (satisfaction and joy...); exhibits self-initiative and independence in solving various tasks according to his/her abilities in different situations; applies acquired habits and skills of movement in different situations and conditions; creatively expresses his/her experiences in rhythmical movement (with or without music); develops habits of daily motion and mobile play at the same time nourishing the respect for order, self-control and more complex forms of cooperation among children; becomes acquainted with his/her own body, its appearance and functions of some parts of the body (development of lateralization); uses physical skills to solve simple life situations and creates a positive self-image about his/her own abilities; acquires and applies healthy eating habits.

b) Development of relationships and building knowledge about other people and the surroundings where the child: develops cooperation and friendship with other children and adults, acquires basic norms of behaviour and order in games and in life; acquires and applies basic rules of collective and safe way of movement (when walking, in traffic, etc); finds his/her way round the school (the room, halls, the yard) and in the vicinity (the park, the path from his/her house to the school and vice versa, some of the amenities in the neighbourhood, etc); finds out information about some occupations and institutions that organize health care; meets important people, institutions, clubs in the domain of physical culture and sport.

c) Discovering the world and building knowledge about it, so the child: acquires and applies habits and skills of self-help necessary for the living and working conditions that he/she will have in school; acquires emotional and physical independence when going on an organized trip, summer or winter holiday; develops interest in sport events – acquires basic concepts and representations about sport institutions, associations, clubs, buildings, disciplines, equipment, etc; develops love for a certain sport, club, athlete; acquires the rules of a certain game – sport, as well as a fair relationship in a game, acquires new friends; develops the spirit of cohesion and solidarity; learns about natural potentials for doing physical activities in his/her vicinity and develops love for nature (Program za područja aktivnosti u predškolskom vaspitanju i obrazovanju (od 3 do 6 godina), 2011).

When it comes to the types of activities in the curricula of pre-school institutions in Montenegro, we have concluded that they divide the types of activities into the following categories: practical daily activities (where daily situations offer a multitude of opportunities for the application and perfection of various physical activities with pre-school children); specific activities (motoric games, elementary gymnastics, complex skills); complex types of activities (dance activities, going on field trips, watching sporting events, etc.) (Program za područja aktivnosti u predškolskom vaspitanju i obrazovanju (od 3 do 6 godina), 2011).

Organization of physical activities in the pre-school institutions in Serbia

The structure of the Curriculum Basis of the Educational Work in Pre-School Institutions in our country comprises four segments: cognitive development, socio-emotional and spiritual growth, development of communication and creativity, and physical development of children. This part of the paper, therefore, offers a deeper analysis of the aspects of physical development, its aims and activities, as well the content of the General Basis of Model B of pre-school education. We have decided to analyze this model because, unlike Model A, which strives for the development of the curriculum depending on the children's interests, Model B explicitly develops educational aims, tasks of the pre-school teacher, and types of activities that the teacher selects on the basis of children's needs and abilities.

General aims of the physical development are the improvement of motorics, senses, health and hygiene, and the activities that are listed are of the bodily, perceptual and health-hygienic type. When it comes to physical activities of pre-school children, one of the tasks of the physical development of children in the curriculum scheme of Model B is the aim to form a healthy, physically well-developed child (Kamenov, 2007). The aims of physical activities in that case are: acquiring rich motoric experience; getting to know one's body; development of lateralization; development of mental and physical abilities, which include speed, agility, flexibility, stamina, etc; development of children's balance; development of all groups of muscles; strengthening breathing muscles; proper development of the nervous system and development and improvement of fine motorics. Very little

attention is devoted to the tasks of teachers in the process of the development of pre-school children's ability to move. These tasks imply the creation of favourable conditions for the development of abilities to move; helping children to develop a sense of self-security and independence in relation to adults when doing physical activities; preparing children for literacy development, primarily with graphomotor exercises as well as other activities; and offering the possibility for corrective exercises in the field of physical development. Of all the physical activities listed here are the ones that allow the child to gain awareness of his/her own physical scheme, the aim of which is to enable the child to use his/her own body and limbs for leaving imprints (in the snow, handprints, footprints, etc); establishes contact between certain parts of his/her own body (puts his/her index finger on his/her nose, etc); tests various ways of moving individual parts of the body; analyzes his/her own movements and compares them to the role model, and also makes up various movements and positions of the body; and finally searches for various ways to do a certain thing (Kamenov, 2007). These physical activities include various forms of movement (walking, running, jumping, climbing, crawling, going through something, rolling, keeping balance, kicking, hitting, dribbling the ball, throwing and catching, throwing with a roll, aiming, lifting and carrying, pushing, pulling and pressing, riding a scooter, tricycle and bicycle, sleighing, skiing, roller-blading and skating, water activities, elementary forms of sport, organized positioning and movement); and exercises for the development of some groups of muscles (shoulder region, back muscles, stomach muscles, graphomotor exercises) (Kamenov, 2007).

The next group of activities considered important for the physical development of children are listed in Model B of the pre-school curriculum in Serbia under the label 'perceptual activities'. The basic aim of these activities is that, at the end of pre-school education, the child is able to use perceptual and intellectual skills for accurate and detailed perception. The curriculum stipulates that the child is supposed to develop the functions of sight, hearing, touch, smell and taste, as well as the joint use of several senses at the same time. The general aims of perceptual activities are: knowing the limitations of one's senses; being able to control the interpretation of sensory impressions; overcoming child thinking and developing coordination among different senses. The pre-school teacher's tasks are to help the development of senses and perception; to provide and shape different sensory experiences; to organize rhythmical exercises that cultivate motor and perceptual-motor coordination of groups of muscles because it is known that children most often cannot separate perceptual from motor operations. Testing the quality of things, phenomena and processes byway of senses and acquiring standards for their analysis is done in several general procedures: 1. Spontaneous handling of a variety of natural and artificial materials; 2. Noticing certain characteristics of objects which children get to know; 3. Finding a certain characteristic on other diverse objects in the vicinity; 4. Testing the correctness of impressions; 5. Including certain characteristics of objects or phenomena in their context; 6. Finally, separating the characteristic from the object or phenomenon (Kamenov, 2007).

Finally, our pre-school curriculum lists health and hygienic activities in the field of physical development. The aims of these activities are the development of health culture in order to preserve and strengthen health; acquiring knowledge on health culture with the most attention in the analysis of aims being devoted to children's habits of regular sleep and rest; balanced diet; proper body posture when sitting; regular development of functions of the skin in terms of thermoregulation and breathing; habit of breathing through the nose; strengthening the muscles of internal organs and their proper work; the habit of putting one's hand over one's mouth when coughing; rules of personal hygiene. When it comes to the pre-school teachers' tasks concerning children's physical development and improvement of health, it should provide conditions favourable for the satisfaction of needs for various kinds of activities (morning gymnastics; being outside in the fresh air; maintaining the hygiene of the mouth; mobile games in the open; hygiene of the body; keeping the clothes clean; proper nutrition, sleep and rest; sunbathing; deep breathing through the nose; keeping track of changes in height and weight), and provide children with adequate knowledge on various ways to preserve health and maintain personal hygiene.

Suggestions for innovations in the organization of physical activities in pre-school institutions

The analyses of the selected curricula as well as the suggestions for innovations have originated in the fact that the strength of childhood combined with dedicated and adequately educated parents and pre-school teachers who operate under contemporary curricula result in healthy, well-developed, agile, independent and brave children. We increasingly witness the fact that pre-school teachers are the ones who deny children physical activities or hold them back in certain forms of movement, primarily because of the responsibility they have if a child is injured. This is done without thinking that the decrease of physical activities directly abolishes the natural stimulation of the brain, which affects the intellectual development of children. Denying physical activities also necessarily leads to distancing children from nature and human inborn basic need to live in harmony with nature.

We think that some of the outcomes of a good curriculum of physical activities should be developed physical competences of children; developed psychomotor functions of children, a firm habit of a physically active way of life as an important factor of the overall health of man; developed affectivity in children, developed self-respect, self-confidence, developed communication skills, respect for rules, understanding of

victory and defeat, a certain level of decision-making skills, cooperation and respect for others as well as a developed sense of enjoyment when doing physical activities. In order for this to be accomplished, children must choose on their own at least some of the physical activities that interest them and they should achieve success in these activities. Children should also have the possibility to live and develop in accordance with nature since they have an inborn propensity and genetic predispositions to explore and develop love for nature (biophilia) and their surroundings. This is the kind of love that is later the origin of a new ecological culture of a holistic moral view of the world (ecophilia). In order to develop this natural propensity in children, a series of conditions must be met, which is the responsibility of pre-school teachers (White & Stoecklin, 2008). These are the very elements present in some of the analyzed curricula in the world, while in our country they are still structurally and systemically unrecognizable.

With respect to the necessary innovations, one of the primary things that should change is the *frequency of physical activities*. Long-term training as well as continuous and progressive burdening achieve such changes in the body that lead to the development of skills and abilities (Oljača, 2005). Children of all age groups should have different physical activities during every day in order to achieve the desired result and to acquire the habit of doing physical activities.

A very important factor in the creation of the curriculum of physical activities is the *inclusion of parents*. Pre-school teachers and professional associates should use different forms of individual and group contacts to contribute to the improvement primarily of the pedagogical culture of parents and thus establish conditions for high-quality and well-organized physical activities. What could be applied here is the “emergent curriculum”, which occurs as a result of an intensive interaction of children, pre-school teachers, parents and their (social and material) environment (Rinaldi, 2004, 12-13).

Pre-school teachers should adjust physical activities to each individual child. Genetic characteristics, maturity, nutrition, sleep and other individual and environmental factors influence the attitudes and abilities of children (Oljača, 2005). For that reason *individualization* is one of the principles which are necessary in the realization of the curriculum of physical activities, because only the achievement of success and insight into the progress of physical abilities are an incentive for the child to continue to do sports. On the other hand, failure or continuous defeat in group games would most likely discourage a pre-school child and create a long-term aversion for physical activities.

An additional, yet significant thing we can discuss is the *motivation of pre-school teachers* who involve pre-school children in physical activities. Motivation is connected with pre-school teachers' enthusiasm, determination to work and decision-making. Moreira, Fox & Sparkes (2002) conducted a research in Great Britain on the motivational profile of pre-school teachers during physical activities with children. The research included four areas: work satisfaction, work dissatisfaction, personal satisfaction and possibility to choose another job. They arrived at the conclusion that during physical activities pre-school teachers are motivated internally, primarily because they can see children's progress and success. Unlike them, work dissatisfaction was noticed with those teachers whose children did not make any progress. This dissatisfaction was connected with the low status of physical activities in pre-school institutions, lack of recognition, disappointment among children and a lot of administrative duties. The external factors of motivation such as salary or status were less important for these British pre-school teachers. The research also showed that pre-school teachers were motivated by the possibility to make progress in connection with sports activities in pre-school institutions as well as sports and recreational activities at higher levels of education. As a way of monitoring progress in this segment in our pre-school institutions, a comprehensive research topic arises, with the following research questions: a) What are the characteristics of the curriculum of the physical aspect of the development in pre-school institutions? b) What motivates pre-school teachers during physical activities? c) What is the purpose and aim of physical activities in the pre-school period?

In order to raise the organization of children's physical activities to a higher level, we should inevitably work on the *training of pre-school teachers and improvement of their competences*. The profession of the pedagogue of physical education implies theoretical and practical knowledge in sports sciences, psychological, sociological and pedagogical sciences (Oljača, 2001). When they master these kinds of knowledge and understand the importance of physical activities as well as the worrying results arising out of decreased physical activity, it will be much easier for children to acquire the habits of doing continuous physical activities. Research has shown that better results of pre-school children are tied to higher qualifications and better education of pre-school teachers (Siraj-Blatchford, 2004). Pre-school teachers should attend educational seminars and be included in the process of continuous improvement of their competences in order to arrive at the desired outcomes (Bennett, 2008).

Surely one of the segments that deserves special attention when creating the curriculum for physical activities of pre-school children are *talented children*. Talent in this aspect of activities can easily be seen at the pre-school age and for that reason pre-school teachers should be educated and competent enough to indicate the talent of the child to the parent, but they should also be able to satisfy the needs of the talented child, because talent as the greatest natural resource cannot be neglected at this age.

It is very important to provide children with the opportunity to participate in those activities that they are successful at. Early learning creates later learning, early success precedes later success, just like early failure

causes later failure (Heckman, 2004). Hence, from the earliest age children develop *self-confidence*, which is an extremely important factor in their whole life. It is necessary to indicate the importance of the very progress in physical activities, not only the final result of a certain activity. This affects the psychological, emotional and social development of children as well as their attitude towards physical activities during their entire life.

Nutrition and personal hygiene of children are inseparable from sports activities. For that reason it is important to indicate the *significance of a healthy and balanced diet* which is necessary both before and after physical activities. In order to prevent increasing obesity among children and, in some cases, excessive leanness, it is necessary to show, even to the youngest children, the significance and consequences of an unhealthy diet. Although this segment is part of Model B we have analyzed, we still think it deserves more attention. The task of pre-school teachers is to help children acquire necessary knowledge about the consequences of a poor diet. Nutrition represents the basic energetic sources of development and it is necessary to devote due attention to the issues of healthy nutrition, i.e. proper ratio of various types of food, time and rhythm of eating, in every phase of the development and work with children (Oljača, 2001).

One of the suggestions for innovation would be the implementation of *formative and summative evaluation*. In order for a pre-school institution to be able to fulfill the aims and high expectations before it, it must constantly change. This constant change of the educational institution implies the need for continuous learning of all the subjects in the educational process. In other words, the concept of an organization which works in the permanent state of learning thus creating changes (Senge, 2003) may refer to a greater extent to pre-school educational institutions more than to any other because they prepare younger generations for the constantly changing environment of the future. Therefore, in order for an organization to survive and develop, the speed of learning in the organization must be equal to or greater than the speed of changes in the external environment (Stoli and Fink, 2000 after Slunjski, 2011). A pre-school institution designed in such a way is able to constantly organize and re-invent itself. If we were to measure the result that children achieve after they have left the pre-school institutions, these results would be the source of pre-school teachers' greater motivation and better results in all activities they do with children.

Finally, we can conclude that the development of the curriculum (in our case the physical aspect of the development of children) is seen as a team effort which rests on the cooperation of pre-school teachers with children, parents and professional associates of different profiles (pedagogues, psychologists, defectologists) and, if necessary, scientific workers and other interested representatives of the local community (Klemenović, 2009). The pre-school age is an ideal time for the corrective work in the field of physical development, which provides experts and parents with excellent possibilities for the progress of children. It is important to provide children with a natural and motivating environment because if that is denied, this directly influences their intellectual development.

Conclusion

Changes and innovations in education have existed since there was a system of education. We believe that the progress of our entire society and approximation to contemporary world trends in all fields greatly depends on young people educated in our institutions. That is why we should start with innovations in the educational institutions for the youngest children because without a good basis it is not possible to further develop the system. In this process the basis of creating contemporary pre-school curricula should be searched for in the principles of children's development which arise out of needs and characteristics of children from their birth until the time they start school (Evans et al., 2000).

Having analyzed the organization of physical activities for pre-school children in different countries we have come to the conclusion that a high quality curriculum of physical activities should include: bodily activities; perceptual activities; health and hygienic activities; cognitive knowledge about the significance of life-time physical activities and potential injuries that sport and physical activities can bring; cooperation with parents; providing adequate activities for talented children and developing a holistic paradigm of life. Physical activity is useful because children learn how to follow the instructions of pre-school teachers, they work on the interaction with other children and on socialization, and they learn about the differences among children in the physical sense. Pre-school children can learn how to respect rules through physical activities. All this should be part of the tasks of physical activities in pre-school institutions so children can adequately develop and grow from the very beginning. In accordance with that, a contemporary and a sustainable society must necessarily initiate certain innovations and implementations that are necessary so that even the youngest children can have a healthy childhood. Education of pre-school teachers, professional development and improvement of competences are seen as crucial factors of a better organization of physical activities whereas their status in the curriculum depends on the current educational politics.

Acknowledgements

*The paper is written as a result of the research within the Project 'Quality of Education System of Serbia in the European Perspective (KOSSEP)' (no.179010), which has been financed by the Ministry of Science and Technological Development of the Republic of Serbia.

References:

- Bernett, W.S. (2008). *Preschool Education and Its Lasting Effects: Research and Policy Implications*. Boulder and Tempe: Education and Public Interest Center&Education Policy Research Unit. Available on the Internet: <http://epicpolicy.org/publication/preschool-education>
- Curriculum Frameworks and instructional resources division instruction and learning support branch (2011)*. California Department of Education. Available on the Internet <http://www.cde.ca.gov/ci/cr/cf/documents/gkkindercurriculum.pdf>, pristupljeno 24.05.2015
- Evans, J.E., Myers, R.G., Ilfeld, E.M. (2000). *Early childhood counts: a programming guide on early education care for development*. USA: The International Bank for reconstruction and Development, The World Bank Publication
- Heckman, J.J. (2004). Invest in the very young. In: Tremblay RE, Barr RG, Peters RdeV, eds. *Encyclopedia on Early Childhood Development* (online). Montreal, Quebec: Center of Excellence for Early Childhood Development. Available on the Internet: <http://www.child-encyclopedia.com/documents/HeckmanANGxp.pdf>
- Kamenov, E. (2006). *Vaspitno-obrazovni rad u dečjem vrtiću – opšta metodika*. Novi Sad: Dragon.
- Kamenov, E. (2007). *Opšte osnove predškolskog programa – model B*. Novi Sad: Dragon.
- Klemenović, J. (2009). *Savremeni predškolski program*. Novi Sad: Savez pedagoških društava Vojvodine. Vršac:
Visoka škola strukovnih studija za obrazovanje vaspitača “Mihailo Pavlov”.
- Marić Jurišin, S. (2015). *Implikacije ekoloških programa na socio-emocionalni razvoj dece predškolskog uzrasta iz perspektive održive zajednice – disertacija odbranjena na Filozofskom fakultetu Univerziteta u Novom Sadu*.
- Moreira, H., Fox, K. R. i Sparkes, A. C. (2002). Job Motivation Profiles of Physical Educators: Theoretical background and instrument development. *British Educational Research Journal*, 28, (6), 845-861
- Oljača, M. (2001). *Pedagogija sporta*. Beograd: Sportska akademija.
- Oljača, M. (2005). *Pedagogija sportskog treninga*. Beograd: Sportska akademija. *Osnove programa predškolskog vaspitanja i obrazovanja dece uzrasta od tri do sedam godina (Model A i Model B)*. (1996). Beograd: Prosvetni pregled.
- Physical Education, Kindergarten Curriculum Guide, Interim Edition* (2010). <http://www.ed.gov.nl.ca/edu/k12/curriculum/guides/physed/index.html>, pristupljeno 20.05.2015.
- Program za područja aktivnosti u predškolskom vaspitanju i obrazovanju (od 3 do 6 godina)*. (2011). Podgorica, Crna Gora: Zavod za školstvo. <http://www.zzs.gov.me>, pristupljeno 18.04.2015.
- Rinaldi, C. (2004). The Reggio Emilia Approach – Truly listening to young children. In: *Curricula and Pedagogies in Early Childhood Education and Care: Five Curriculum Outlines* (12-15). Directorate for Education, OECD
- Senge, P.M. (2003). *Peta disciplina – principi i praksa učešće organizacije*. Zagreb: Mozaik knjiga.
- Siraj-Blatchford, I. (2004). Quality teaching in the early years. In: J. Cullen (ed) *Early Childhood Education: Society and Culture* (137-148). London: Sage Publications Ltd
- Slunjski, E. (2011). *Kurikulum ranog odgoja*. Zagreb: Školska knjiga.