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KINESIOLOGICAL PARADIGM OF THE CURRICULUM IN THE FIELD OF PHYSICAL AND HEALTH EDUCATION FOR THE 21 CENTURY

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***Summary** – Good curriculum presents the basis of the entire educational system, every field of education independently, and accordingly, the field of physical and health education. The basis to creating a good curriculum, including physical and health educational field, is in the well-stipulated conception, appropriate definition of aims and objectives and adequate determination of educational outcomes, or better yet, competencies during education.*

Following the above-mentioned principles in the creation of kinesiological paradigm of the curriculum for physical and health educational field, a maximum respect has been given to the achievements in kinesiological science thus far. However, it is only one of the fundamental conditions but not a guarantee that the presented scientific findings, both the ones regarding the values of this educational field, and those regarding values of individual kinesiological activities, will also be exploited in the finalisation of this significant document.

All the more so, since only by ensuring efficient transfer of the afore mentioned knowledge, primarily in teaching physical and health education with more lessons per week than so far, can the necessary effects in this field of education, not only be expected, but also achieved. Naturally, this will also need to be considered in the further development of both national curriculum and physical and health education curriculum. The reason is not only that according to the number of physical and health education lessons so far, both among the neighbouring countries and other European countries, Croatia has been almost at the bottom of the scale, but also primarily because the available number of lessons is not sufficient to ensure educational minimum, not to mention basic biotic needs of children and pupils.

Therefore, the final solution in the creation of the curriculum in the physical and health educational field should enable children and pupils, through physical exercise, to satisfy their essential and existential needs to a maximum, especially those needs they will require for more efficient adaptation to contemporary lifestyle and work conditions, as well as readiness for work in the contemporary society.

Key words: *curriculum, physical and health education, kinesiological paradigm*

INTRODUCTION

Speaking about kinesiological paradigm of the curriculum in the field of physical and health education for the 21 century today, at the beginning of the 21 century, is impossible without considering the basic guidelines determining the conception, general aim and tasks of this educational field of study as well as expected educational achievements (outcomes and competencies), during children's stay in kindergarten, i.e. education throughout primary and secondary school.

With the aim to give a more accurate answers to the questions determining basic guidelines of the field of physical and health education in the contemporary society, we hold that there are at least three points of reference that need to be stated here.

Firstly, scientific and technical discoveries, the constantly growing progress in information technology and the constantly rising effect of globalisation, are some of the main characteristics of the times we live in. The consequences of such developmental trends (both positive and negative) are present in all fields of human activity and are especially reflected in the life and work of a man in contemporary society (Beck, 2004). However, the fact remains that the society is still changing, in all fields and human activities. It is evident that a contemporary man, or men, live a different life today, furthermore, we are witnessing the growing-up of the first "digital" generation with all the benefits that modern society provides. It is certain that their lifestyle and working pace will significantly differ from ours; it actually already does (David, 2005).

Secondly, considering that scientific and technological revolution, among other things, constantly reduces human part in labour, but also positive incentives that have always ensured maintaining biological balance of every organism, and that contemporary man has reduced physical movements to a minimum, there is an increased need for physical exercise to establish the balance between a contemporary man and the modified way of life and work. The more so now that there is a growing view that only physically and psychologically capable person can meet the demands of the contemporary life and cope with sudden and unpredictable situations. There is no doubt that all these characteristics of life and work in the contemporary society have a special importance in the case of the youngest, for the simple reason that it is young children and pupils who most readily notice and adopt, to the greatest extent, the afore mentioned changes as well as other changes that accompany the

civilisational development and progress. When we add that the children and pupils who are now in kindergarten and school will live and work in the 21 century, that, according to the predictions, human labour will continue to be less physical, that movement and play will be increasingly replaced by so called sedentary activities, it is imperative to exert effort as of today to make sure that physical exercise and sport and recreation activities of adults, as well as adequate physical and health education of the children and pupils is understood as irreplaceable factor in the further development of the society (Findak, Mraković, 1998).

Thirdly, the expansion of the scientific achievements and the ever-greater distribution of information and communication technology demand, among other, radical and permanent transformation of education, from pre-school to university. This is the reason that transformation of the educational system and radical change of the position that education has in the society, have become one of the priorities in all the countries around the world (Beck, 2004; Findak, Prskalo, 2003).

In accordance, dynamic and complex reality requires school that can easily adjust to all life circumstances and that can enable the youngest and the young to function in a variety of situations. Thus, the contemporary society requires quality school, school that children will gladly go to and will develop their characteristics to a maximum - their abilities, useful knowledge, knowledge about the value of altruism, responsibility to labour and will take with them some common human values (Hentig, 2007; Findak, 2001; Findak, Mraković, 1998).

Fourthly, children and pupils come to school and to physical and health education class with an already established system of needs and desires. In accordance, the teachers are expected and rightfully required to encourage children's intellectual needs to the utmost, to affect their anthropological fitness, the level of their knowledge of motor skills, educational effects of work, their authentic needs and especially their biological need for movement, i.e. physical activity (Bunk, 1999; Findak, Neljak, 2006). In connection with that, it should be established that there is numerous evidence which irrefutably confirms that through systematic, scientifically grounded physical exercise, it is possible to significantly affect not only the control and management of morphological, motor and functional characteristics, but also to a great extent, cognitive dimension as well as the conative dimension responsible for the behaviour modality and socialisation of those who are exposed to adequate physical and health education (Findak, 2001; Findak, Prskalo, 2005; Hardman, 2002).

Supposing we accept that the above mentioned issues present a good orientation in searching for the right ways in finding the answers to the problem mentioned in the title, we will probably agree that, within the frame of the available space, they should be considered not only from the aspect of general kinesiological point of view, but also from the view of generally accepted scientific achievements, according to which the key role of success in any activity is the quality of the

human factor. The basis of the quality of human factor results from the quality of a person's education, and the basis of their education is evident in the readiness of every individual to use their knowledge to bring about changes, or better yet, to keep up with the changes or, more accurately to keep up with the times (Bruner, 2003; Reich, 2004). This is the reason why knowledge and science are not only the main resources in the 21 century, but also why the 21 century was proclaimed the knowledge century. (Dryden, 2001).

CURRICULUM IN THE FIELD OF PHYSICAL AND HEALTH EDUCATION

In view of achieving a better understanding and hopefully, later, more successful communication, it is necessary, speaking of kinesiological paradigm of the curriculum in the field of physical and health education for the 21 century, among other, to point to the fundamental factors which, to a greater or lesser extent, determine the creation of the curriculum for this educational field.

The first, and we are aware that this is nothing new if we establish that the conception, the aims and objectives of every educational field need to be congruent with the conception, aims and objectives of the entire educational system. The second is the result of the understanding according to which the conditions of life and work have significantly changed in the contemporary society, which means that the conception, the aims and objectives of the entire educational system, and accordingly, every educational field, including physical and health education, need to be subjected, to a maximum, to the demands that accompany life and activities of children, pupils and young people in the contemporary society. Naturally, in order to ensure the obtaining of valid feedback about the effects of work, in addition to the afore mentioned conception, aims and objectives, educational outcomes, i.e. the competencies that children and pupils need to acquire during their entire education need to be determined. Finally, the third actually presents a logical consequence of the already stated, and is evident in the need for an objective consideration of the role and meaning of physical and health education based on the accomplishments of kinesiological science, its comparative advantages and accordingly, in the defining of such conception, aims, objectives and competencies that will completely be directed towards the needs of children and pupils, and a possible, that is, necessary contribution of this educational field to the entire realisation of our educational system.

CONCEPTION OF PHYSICAL AND HEALTH EDUCATION

In defining the conception of this educational field, the starting point was the fact that physical and health education has a basic function in the harmonious development of psychosomatic characteristics of children, pupils and young

people, for acquiring and perfecting biotic and motor skills and social motor skills, as well as acquiring and developing basic competencies, especially the ones that result from the need for appropriate and constant adjustment to new working and living conditions. Mutual dependence of physical and health education results from common effect of the content and activity in this educational field on the anthropological status of each individual.

Thus, the conception of physical and health education is based on kinesiological ideal of a man which implies good health, harmonious development and preservation of all characteristics and abilities, as well as acquiring knowledge necessary for effective life and work in the contemporary society.

Commitment to such conception, among others, is based on the following findings. First, health is certainly not everything, but everything without health is nothing. Second, health is not a value given to one man once and for all, but, as everything else it changes in time and space. Third, if good health is the basis of all human activity, and through physical and health educational field one can directly affect preservation and advancement of health, then this educational field is also one of the preconditions necessary for the realisation of aims and objectives of the entire educational system. And, finally, if we say that this educational field is significantly different than other educational fields in the fact that, through the means at its disposal, it can and has to affect morphological characteristics, motor skills, functional abilities, cognitive and conative dimensions of children and pupils, then it is not hard to make the conclusion that both physical and health education, naturally, along with other educational fields, can be said to make the basis of educational system (Findak, 2001; Findak, 2003).

AIM OF PHYSICAL AND HEALTH EDUCATION

Based on everything said so far, it is not difficult to conclude that such new, or to be precise, more responsible treatment of this educational field of study not only implies, but also demands a significantly different approach regarding the definition of its aims.

The consequences of this are that, besides defining general aims of physical and health education, there is a need not only for defining the aims of this educational field for pre-school, primary and secondary school, but also determining the particular aims of physical and health education for pre-school, primary and secondary school.

In view of that, the aim of physical and health education is fulfilling biopsychosocial motives for movement, encouraging proper growth and development, optimum development of characteristics and abilities, acquiring and perfecting kinesiological theoretical knowledge and motor skills, improving motor abilities and achieving appropriate educational effects.

OBJECTIVES OF PHYSICAL AND HEALTH EDUCATION

Objectives of physical and health education derive, on one hand, from explicitly defined aims of this educational field and, on the other hand, from the developmental characteristics of children, pupils and young people, their needs that come from living and working in the contemporary society, especially those connected with acquiring basic competencies, that are supposed to enable the aimed development of abilities and the change of characteristics, the necessary educational orientation and optimum educational effects in every curricular cycle, i.e. every level of education.

Anthropological objectives are evident in the possible and necessary effect on anthropological characteristics of children, pupils and young people, and particularly on the transformation of morphological, motor and functional characteristics of children, pupils and young people. General morphological effects imply the effect on the body composition where particular stress should be on the optimum ratio between the muscle mass and subcutaneous fat tissue, as well as prevention of obesity. Physiological effects are directed towards stimulating the function of cardiovascular and respiratory system, as well as affecting the quality of osseous-muscular system. The positive effect on immune system is necessary both for health protection and prevention of acute and chronic disease.

Educational objectives are evident in the possible and necessary acquisition and perfecting of kinesiological theoretical knowledge and kinesiological motor skills (general and specific), non-kinesiological basic motor skills and the improvement of motor abilities.

Objectives of upbringing are evident in the possible and necessary effect on psychological and moral characteristics of children, pupils and young people, in acquiring and perfecting health and hygiene habits, work habits, creating a system of values towards physical exercise that will encourage regular and life long physical training, i.e. physical exercise will become a permanent addiction, or better yet, basic component of culture of life.

Competencies or educational outcomes

Basic competencies in the field of physical and health education are directed towards training children and pupils for:

- safe and healthy physical exercise,
- using kinesiological operators in contemporary living and working conditions,
- responsible attitude towards one's anthropological status,
- responsible attitude towards healthy lifestyle using means of physical and health education, sports and sport recreation,
- building humane interpersonal relations,

- providing self-help and helping others in urgent situations,
- applying basic kinesiological theoretical and motor skills in everyday life,
- overcoming a crisis manifested in conflict during sports activity, and also later in real life,
- appropriate mobility and need for flexibility in communication,
- independent and appropriate physical exercise,
- active rest with the aim of increasing work capacity

PRESCHOOL EDUCATION

The aim of physical and health education in preschool education is encouraging proper growth and development of preschool children, preserving and improving their health, optimum development of their anthropological characteristics, acquiring and perfecting biotic motor skills and general kinesiological knowledge, improving motor abilities and achieving appropriate educational effects.

Distinct aims of physical and health education in preschool

Defining distinct aims of physical and health education results from the need to take into consideration biopsychosocial characteristics of preschool children who belong to individual curricular cycles: I cycle from 6 months to 1 year, II cycle from 1 to 3 years, III cycle from 3 to 6.5 years, i.e. till school age.

The distinct aims of physical and health education are:

- fulfilling the primary biotic needs for movement,
- developing characteristics and abilities in accordance with the preconditions of growth and development of preschool children,
- affecting morphological status of preschool children developing muscular reactions primarily needed to maintain body posture and balance,
- affecting the increase of the immunity towards unfavourable external influences,
- acquiring and perfecting the basic natural forms of movement, especially the ones necessary for everyday life,
- acquiring the basic knowledge about health preservation and improvement,
- fulfilling the need for play as the basic precondition for the development of creative abilities and socialisation of children,
- developing and preserving health and hygiene habits,
- encouraging and enabling children for all forms of communication and expression, especially expression through motor skills,
- affecting the formation of proper attitudes about the importance of physical exercise,

- affecting the development of environmental consciousness by implementing physical exercise under appropriate natural and health and hygiene conditions.

Competencies or educational outcomes

- acquired basic biotic motor skills and general kinesiological knowledge necessary for an easier transition to school,
- acquired basic health and hygiene habits necessary to maintain personal hygiene, especially before and after physical exercise,
- acquired fundamental knowledge about the basic natural forms of movement, and especially the ones that are essential in everyday life,
- knowing how to dress properly for physical exercise,
- ability to take care of one's clothes and footwear necessary for physical exercise,
- ability to cooperate in a group and willingness to respect the agreed rules.

PRIMARY SCHOOL

The aim of physical and health education in primary school is encouraging proper growth and development of primary school pupils, maintaining and improving their health, optimum development of their anthropological characteristics, acquiring and improving basic kinesiological theoretical knowledge and kinesiological motor skills, improving motor achievements and achieving appropriate educational effects.

Distinct aims of physical and health education in primary school

Defining distinct aims of physical and health education results from the need to take into consideration biopsychosocial characteristics of primary school children who belong to individual curricular cycles: I cycle from grade 1 to 4, II cycle from grade 5 to 6, III cycle from grade 7 to 8.

The distinct aims of physical and health education are:

- fulfilling the need for movement and exercise and creating the habit about the need for everyday exercise,
- developing anthropometric characteristics, motor and functional abilities in accordance with the preconditions of pupils' growth and development,
- learning about preconditions of growth and development and the meaning of regular and proper physical exercise,
- developing awareness about the importance of physical exercise for health maintenance and improvement,
- enabling pupils to use fundamental natural forms of movement in various physical activities,

- helping pupils develop a responsible and objective attitude towards themselves and the development of their own abilities,
- developing proper health-related behaviour of pupils with the aim to preserve and improve their own and others' health,
- enabling pupils to apply basic kinesiological knowledge in everyday life and work,
- enabling pupils to apply the acquired basic kinesiological knowledge in various sports activities,
- developing cooperative behaviour and enabling pupils for team work,
- acquiring and improving swimming skills,
- learning some basic swimming techniques,
- developing environmental consciousness about the importance of preserving and protecting the environment,
- enabling pupils to organise their free time in a meaningful manner using physical exercise and sports,
- recognising talented children and pupils and including them in sports activities.

Competencies or educational outcomes

- acquired basic kinesiological competence about the proper use of kinesiological operators,
- knowing and understanding the basic rules about the effect of physical exercise on the body,
- developed awareness about the need to exercise in clean clothes and footwear,
- acquired basic kinesiological knowledge about proper physical exercise,
- developed awareness about the need to do physical exercise under appropriate health and hygiene conditions,
- acquired basic knowledge about motor expression and creativity,
- developed awareness about the need to preserve the state of anthropological characteristics at their maximum level,
- acquired ability to self-assess the effects of physical exercise,
- developed awareness about one's own health as well as others',
- acquired ability to cooperate in a group and respect the agreed rules,
- developed awareness about the need to respect differences among people,
- developed awareness about the need to preserve and protect the environment.

SECONDARY SCHOOL

The aim of physical and health education is encouraging proper growth and development of secondary school pupils, maintaining and improving their health, optimum development of their anthropological characteristics, acquiring and improving social motor skills, specific kinesiological theoretical knowledge and motor skills, improving motor achievements and achieving appropriate educational effects.

Distinct aims of physical and health education in secondary school

Defining distinct aims of physical and health education results from the need to take into consideration biopsychosocial characteristics of secondary school children who belong to the fourth curricular cycle: from grade 1 to 2.

The distinct aims of physical and health education are:

- learning the preconditions for the development of individual dimensions of anthropological status and the meaning of physical exercise,
- stimulating physical exercise by increasing muscle mass and further development of motor and functional skills,
- promoting responsibility for personal health and care for others' health,
- efficient change of characteristics and abilities with the aim to increase working ability and quality of life,
- enabling pupils to apply specific kinesiological knowledge in everyday life and work,
- developing abilities for top-quality performance through motor expression according to individual characteristics of talented individuals,
- enabling pupils to apply the basic rescue techniques in water,
- nourishing habits to preserve and use healthy natural surroundings,
- enabling pupils for rational use of free time, especially through active rest,
- satisfying the need for affirmation, but also restraining any tendency to overestimate one's own abilities or underestimate others',
- enabling pupils to apply the acquired specific kinesiological knowledge in various sports and recreational activities,
- promoting sports culture.

Competencies or educational outcomes

- acquired specific kinesiological competence about the proper use of kinesiological operators appropriate for pupils' future occupation,
- knowing and understanding the basic rules about the effect of physical exercise on the body,

- ability to preserve the state of anthropological characteristics at their optimum level,
- knowing and understanding the basic rules related to dosage, distribution and control of workload,
- ability to take care of one's own health as well as others',
- developed awareness of personal abilities as a way to increase self-confidence and self-respect,
- acquired specific kinesiological knowledge about sports and sport recreation,
- ability to self-assess the effects of physical exercise,
- acquired habits about the need for kinaesthetic expression and creativity,
- ability to solve problems in urgent situations,
- ability to individually do physical exercise,
- developed awareness about the need to respect basic principles of fair play,
- ability to find the necessary information about physical exercise and sports.

CONCLUSION

Based on everything mentioned so far, it can be concluded that a good curriculum presents the basis of the entire educational system, every field of education independently, and accordingly, the field of physical and health education. The basis to creating a good curriculum, including physical and health educational field is in the well stipulated conception, appropriate definition of aims and objectives and adequate determination of educational outcomes, or better yet, competencies during education.

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