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Original article

THE INFLUENCES OF PSYCHO ABILITY IN EDUCATION OF YOUNG PEOPLE

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Abstract

It is universally recognized in scientific papers published over the years, that psycho ability along with other qualities involved in environmental awareness in the early years and then continue the development of man's relation to society and the environment.

Human personality is studied both from the ability (harmonious physical development) and mental (aspect of personality development) for development and socio-professional integration.

The ability, with all its components, enrich the biologically and psychologically heritage of the young. Exercise, as the main instrument is the biological stimulus which by addition provides morpho-functional development of harmonious, balanced education of motor skills and acquiring skills and driving skills (basic, applicative specific branches of sport).

In basketball game, mental activity is asked for: cognitive functions related to perception and referral situations and choosing the most effective techniques in attack or defense, will and its qualities about overcoming fatigue and negative emotions efforts, affectivity in closely related to specific situations or imagined, both in terms of the satisfactions provided by the game itself and the successes and bitter fear of failure or the superiority of the opponent.

The aim of the research: highlighting the role of intellectual development psycho ability young adults with physical exercise and sports in personality development for socio-professional integration.

Research methods: bibliographic documentation, experiment, statistical and mathematical method, graphical method.

Results: Statistical and mathematical processing for the purposes of research confirms that subjects undergoing experimental program had better results in the control group.

Conclusion: Practicing basketball game at the young age significantly influences intellectual performance and guide the youth trends-resolution analytical strategies in specific cases and inventive abstract situations.

Ability activity by practicing various sports exercise contributes to the development of intelligence, memory and creativity of those who practice them systematically.

Key words: psycho ability, smartness, cognitive, basketball game.

Introduction

It is universally recognized in scientific papers published over the years, that psycho ability along with other qualities involved in environmental awareness in the early years and then continues the development of man's relation to society and the environment.

By Dragnea, Bota (1999) concept of motility is defined as expressing an *"appropriation of human innate and acquired to react with the musculoskeletal system of internal and external stimulus in the form of a movement."*

Motility is seen from two perspectives: as a phenomenon observed from the outside and from the inside as a process - a study of the psychology and the second vision - which asserts the unity of the physical motor development - motor and psychic individual.

Psycho ability is shown both as aptitude but a control complex function of individual behavior. We can say that it includes the participation of various processes and functions that provide both mental reception of and proper execution of the instrument response.

By practical activity, young people develop memory in all forms: short, medium and long due to the accumulation of personal experience.

Psycho ability is defined as the integration of mental and motor functions in the nervous system maturation effect, aimed at the report, "subject to his body (Epuran, 1996).

After Epuran (1976), the components of psychomotor are:

- body scheme
- Segmental dynamic and general coordination;
- Laterality;
- Static coordination-balance;
- Perceptive coordination (the perception of space, rhythm and movements);
- Rapidity of movements;
- Ideomotor like dynamic synthesis of corporal scheme and perceptive coordination with motor task.

Fleishman (quoted by Epuran, 1976), gives the

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following dimensions of the domain of psychomotor:

- The precision of control, the ability to execute appropriate movements, putting into action important muscle groups.
- Coordination with many segments, the ability of combining the action of several body segments;
- Choice of response, the ability to select the right answer.
- Simple and fast reaction time;
- The speed of the movement, especially the arms movement;
- The ability to appreciate an object's speed movement;
- Manual dexterity, the ability of manipulate very small objects;
- Stability of the arm during an exercise;
- "Tapping", the possibility of quick and accurate execution of the movements of the wrist;
- The ability to make an individual adjustment by-passing someone.

Horghidan, in his works, says that by psycho ability education is aimed both developing body scheme ("reflexive aspect") and organizing ego to the world („extensive aspect"), so developing human personality.

At the beginning of psycho ability learning, visual and verbal information prevails. Subsequently, information from kinesthetic analyzers plays an increasingly important role. (Wineck, 1995)

Psycho ability scheme, developed on ability thinking plays a decisive role in practic activities meaning that it offers the young a self control on learning.

A properly controlled ability process takes place both on the circle of internal and external control. The exterior controls the programming conscious of routing and tuning, while the interior motor mastered the details of the ability process.

Psycho ability appears as being an aptitude and a complex control function to set an individual behaviour. We can say that it includes the participation of various processes and functions that provide both mental reception of and proper execution of the instrument response.

The ability activity through practicing exercises in different disciplines,contributes to a development of intelligence, memory and creativity of those who practice it systematically.

Personality as a system involves individual psychic structures human body and also the social relations in which man operates and cultural resources.

Personality is the human subject seen from three phases as Neveanu-Popescu, & contributors (1996): pragmatic topic, one that transforms the world, epistemic subject, who participate in the process of knowledge achieved by mankind and axiological topic at which exceeded entering nature giving a superior culture empire's life.

As man is a complex bio-psycho-socio-cultural we believe that "intelligence system has the property that it can adapt itself to new situations, has the ability to reason, to understand the connections between facts, discover meanings and recognize the truth "(Gagea, 2007).

According DEX, intelligence is the ability to understand easily and well, to refer to what is essential to solve situations and new problems based on previous experience.

For Piaget quoted Gagea (2007) intelligence is a continuation of the practice behaviors acquisition, assimilation of sensor-motor force the figurative. Practical intelligence, sensor-motor and reflective intelligence adapts assimilating world objects surrounding the subject. From a biological perspective, adaptation is a balance between accommodation and assimilation.

Intelligence is in its essence, a live and active operations system. "It is the most advanced mental adaptation, meaning an indispensable tool of trade between the subject and the universe when their circuits beyond the immediate and momentary contacts to achieve comprehensive and stable relationships" (Gavriliu, 2001).

Epuran, M. (1996) defines the ability inteligence as being *"mental ability of the subject to solve theoretical and practical, in a perfectly adequate action driving problems in new or different situations. Intelligence is a synthetic motor cognitive-motor, intuitive nature or operations that use knowledge representations, habits, reorganized after the necessities of the situation. "*

One of the basic characteristics of human intelligence is the *factor g*. The concept of "g" was proposed by Spearman in 1904 and continued by other psychologists such as Carroll, Jensen, aso. He also launched the idea that native intelligence would be based mental energy, the energy that expresses the validity of the factor g (general intelligence) and the factor s (special intelligence features some of its manifestations) (Gagea, 2007)

Intelligence comes in many ways: the way of knowledge, capacity problems and possible resolutions above average thinking.

In 1956, Guilford, quoted by Neacşu, I. (1999) developed the *structure of creativity and three dimensional theory of inteligence.* The author believes that there are two groups of intellectuals' factors for creativity: thinking and memory. In 1959 he shows the "complete theoretical model of intellectual structure" while saying *that intelligence is hard to define, it's multidimensional, with many components.*

Niculescu, (1993) uses the term *sports inteligence.* In his opinion, succes or failure in game sports are a consequence not only of general inteligence but especially sports inteligence.

The research hypothesis: practicing sport/exercises lead to the development of motor ability

and human personality: inteligence, thinking and creativity.

Exercise is a completely different action than is used as a repetition and practice in intellectual skills training. Any topic will not only by verbal or just witnessing someone else performing that movement, learn a move or improve one already learned.

As highlights Cerghit,1997, exercise is not simply to skills training (driving), a well-established modes of action, but also serves other tasks.

Although in many cases exercise is carried stereotype, it should not be understood as a rigid mechanism but rather the subject has the possibility of variations taught or performed as adaptive responses to certain external or internal situations.

Exercises are means or action instruments, whose content, shape and management leads to stable functional effects.

The game of basketball is part of the sport characterized by varying actions. In this case technical mastery is closely linked to the tactical training. Mastery means not only mastering the techniques but also the ability to choose the time of their application based on prudence and required actions by the opponent, also accompanied by the ability to disguise their intentions.

In game of basketball the mental activity is full required: cognitive functions related to perception and referral situations and choosing the most effective techniques in attack or defense, the will and his/her qualities about overcoming fatigue and negative emotions efforts, affectivity in closely related to specific situations or imagined, both in terms of the satisfactions provided by the game itself and the successes and bitter fear of failure or the superiority of the opponent.

By practicing, basketball offers to the young concrete situations of tactic thinking and creative adaptation in game relationship under adversity.

It is necessary to fund specific motor control of the game of basketball rich and good capability of selecting those techniques that can increase the efficiency of the technical and tactical question.

The experiment was carried out with a program to develop ability skills of young students using state basketball game with specific programs.

Subjects: The experimental group consisted of 51 students who practiced systematically exercise and 51 physical education students exempted.

Ability at a young adult, with all its components, enrich biologically and psychologically heritage.

This period is related to the acquisition of the status of adult and is characterized by intense development of the personality, all this in the context of removal under the tutelage of family and school.

Training remains important for most young people, but it is nuanced according to personal interests. The process of intellectualization is widening amid the aspiration to spiritual and cultural independence. In terms of functional, coordination structures of neuro-endocrine system matures, significant fact in balancing the driving actions.

The maturation of neurocerebral mechanisms and the development, in the earlier stages, of retrieval systems have prepared the new level of memory which is characterized by: increasing memory volume; logical memory domination; enhance capacity to memorize the sides of abstract and general knowledge; increasing the active nature of memory; active replication of knowledge (Predoiu, doctoral thesis, 2012).

The young adult evaluates his chances of success and makes reasonable predictions with regard to his own driving performances.

Exercise, as the main instrument is the biological stimulus and by accumulation provides morpho-functional development of harmonious, balanced education of motor skills and acquiring skills and driving skills (basic, applicative specific branches of sport).

Biological, intellectual and moral maturation conduct is felt progressively displayed, search itself being substituted by self-assertion. Located peripheral body image in childhood becomes consistent, polarizing the attention of young that are constantly looking to improve the picture.

In this research, we developed a complex methodological treatment for determining various aspects of psychomotor's influence in intellectual education of young students from A.S.E. Bucharest with specific programs.

Concretely, we have identified strategies focused on operational objectives which communicate methods and methodological processes, forms of training in operational structures that increase the efficiency of the process of teaching the game of basketball in higher education and the development of the driving intelligence of students.

I selected operating systems and I have developed specific programs to the game of basketball, in accordance with the requirements of the psycho-pedagogical characteristic to youth stage in order to increase the effectiveness of the lesson of physical education for students. We have included in the specific programs technical and tactical actions game to stimulate students ' creativity and intelligence.

The specific programs have been designed in compliance with the goals and objectives of the reference frame of the game of basketball in the physical education curriculum for higher education.

Two tests were applied: Matorin test and Raven test.

Statistical and mathematical processing and interpretation of the results is presented in tables and graphs that are in the pages below:

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Table 1. Statistic- table Matorin test – right turning control vs experiment

Statistic indicators	Results (grades)		**ANOVA test single factor**	
	Control	Experiment		
Mean	359.41	392.65	α (confidence threshold set)	α = 0.05
Median	360.00	390.00	H_0 (the null hypothesis)	m_1-m_2=0
Standard deviation	16.18	12.94	H_1 (the research hypothesis)	m_1-m_2#0
Maximum value	380	440	df_1 (between groups)	1
Minimum value	320	380	df_2 (within groups)	100
Amplitude	60	60	Number of subiects	102
Variation coefficient	4.5%	3.3%	F reference	3.94
The average difference		33.24	F estimated	131.31
Effect size (Cohen)		1.15	P-value	0.0000

In the final tests, the average obtained by the experimental group is higher than control group with 33.24 average grades, average is 392.65 in the experiment and 359.41 in the control group. Data dispersion is homogeneous in both groups. Variance ANOVA test showed that the average difference reached statistical significance threshold, p = 0.0000 < α. Sized effect (1.15) shows a very large difference between the means of the groups. In this context we reject the null hypothesis (H_0) and accepted research hypothesis (H_1). Graphical representation of the results is presented below.

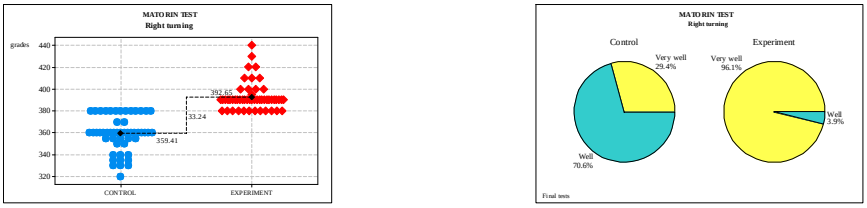

Figure 1. Matorin test – right turns –/- Percentage control vs.experiment

Table 2. Statistic –Matorin test – control left turns vs experiment

Statistic indicators	Results (grades)		**ANOVA test single factor**	
	Control	Experiment		
Mean	361.08	409.12	α (confidence threshold set)	α = 0.05
Median	360.00	410.00	H_0 (the null hypothesis)	m_1-m_2=0
Standard deviation	12.58	23.47	H_1 (the research hypothesis)	m_1-m_2#0
Maximum value	380	450	df_1 (between groups)	1
Minimum value	325	380	df_2 (within groups)	100
Amplitude	55	70	Number of subiects	102
Variation coefficient	3.5%	5.7%	F reference	3.94
The average difference		48.04	F estimated	166.00

In the final tests, the average obtained by the experimental group is higher than control group with 48.04 average grades, average is 409.12 in the experiment and 361.08 in the control group. Data dispersion is homogeneous in both groups. Variance ANOVA test showed that the average difference reached statistical significance threshold, p = 0.0000 < α. Sized effect (1.29) shows a very large difference

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between the means of the groups. We reject the null hypothesis (H_0) and accepted research hypothesis (H_1). Graphical representation of the results is presented below.

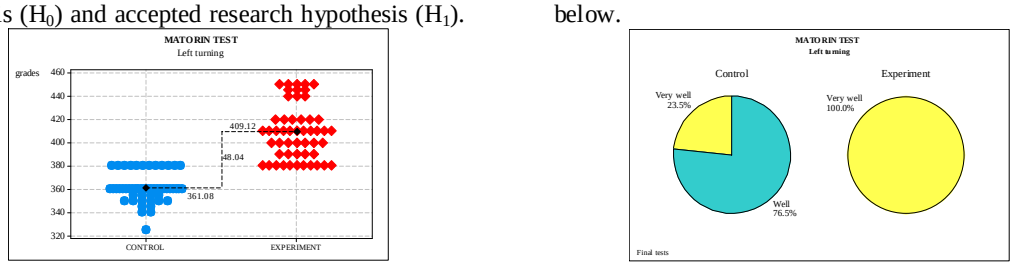

Figure 2. Matorin test – control left turns vs experiment

Table 3. Statistic table Raven progrssive matrix control errors vs. experiment

Statistic indicators	Results (errors)		**ANOVA test single factor**	
	Control	Experiment		
Mean	7.88	2.02	α (confidence threshold set)	α = 0.05
Median	8.00	2.00	H_0 (the null hypothesis)	m_1-m_2=0
Standard deviation	3.40	1.05	H_1 (the research hypothesis)	m_1-m_2#0
Maximum value	14	5	df_1 (between groups)	1
Minimum value	2	1	df_2 (within groups)	100
Amplitude	12	4	Number of subiects	102
Variation coefficient	43.1%	51.9%	F reference	3.94
The average difference		-5.86	F estimated	138.62
Size effect (Cohen)		1.18	P-value	0.0000

The arithmetic mean of the experimental group is 5.86 less than the control group. Average final test is 2.02 errors for the experimental group and 7.88 for the control group. Data dispersion is heterogeneous in both groups. Variance ANOVA test showed that the mean difference is statistically significant, p=0.0000 <. α.. Effect size (1.18) shows a very large difference between the means. We reject the null hypothesis (H_0) and accept research hypothesis (H_1). Graphical representation of the results is presented below.

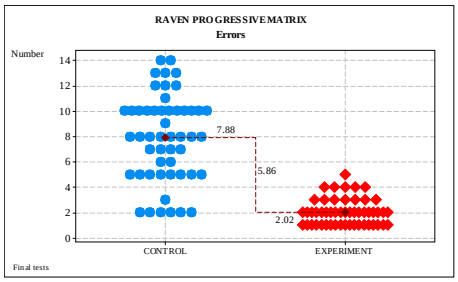

Figure 4. Raven progrssive matrix control vs. experiment error

Table 4. Statistic table aven progressive matrix – points control vs experiment

Statistic indicators	Results (points)		**ANOVA test single factor**	
	Control	Experiment		
Mean	52.12	57.75	α (confidence threshold set)	α = 0.05
Median	52.00	58.00	H_0 (the null hypothesis)	m_1-m_2=0
Standard deviation	3.40	1.23	H_1 (the alternative hypothesis)	m_1-m_2#0
Maximum value	58	59	df_1 (between groups)	1

Minimum value	46	55	df_2 (within groups)	100
Amplitude	12	4	Number of subiects	102
Variation coefficient	6.5%	2.1%	F reference	3.94
The average difference		5.63	F estimated	123.67
Size effect (Cohen)		1.11	P-value	0.0000

The arithmetic mean of the experimental group is 5.63 higher than the control group. Average final test is 57.75 points for the experimental group and 52.12 for the control group. Data dispersion is homogeneous in both groups. Variance ANOVA test showed that the mean difference is statistically significant, p=0.0000 <. α.. Effect size (1.11) shows a very large difference between the means. We reject the null hypothesis (H_0) and accept research hypothesis (H_1). Graphical representation of the results is presented below.

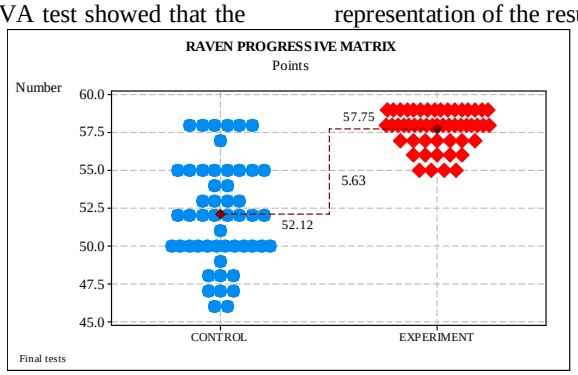

Figure 5. Raven progrssive matrix control vs. experiment points

Disscusin

Paraschiv, 2012 in his doctoral thesis entitled: "Psychomotor and motor intelligence in adolescence. Educational strategies for training and development" states that "motor intelligence depends largely on achieving a stable, deep, creative and innovative educational process".

Goleman, 2001 quoted by Paraschiv, 2012 states that traditionally the brain power is given by IQ, but as the world becomes more complex, EQ (emotional intelligence) goes first.

Spirituality, like emotion, has various degrees of depth and expression. It can be conscious or unconscious, developed or undeveloped, healthy or pathological, naive or sophisticated, advantageous or dangerously distorted ("Psychology TODAY" magazine, February 2006).

As a result of investigations and studies carried out, several authors (Epuran, Gavriliu, Horghian) have come to the conclusion that the motor intelligence is expressed through:

- Operational thinking ability;
- the power of anticipation-decision-action in situations of adversity;
- high speed of implementation of items;
- an excellent spatial orientation;
- motor perception capabilities
- superior coordination;
- capacity to estimate the time;
- excellent dynamic balance.

Conclusion

1.Practicing basketball game at the young age significantly influences intellectual performance and guide the youth trends-resolution analytical strategies in specific cases and inventive abstract situations.

2.Ability activity by practicing various sports exercise contributes to the development of intelligence, memory and creativity of those who practice them systematically.

3.The complexity of the organism, and in particular psychological factors such as motivation, will, capacity, a.s.o decision, enforcement of the regulation provides reverse motor and ability learning the game of basketball, appears as an integrative synthesis of cognitive and motor links available depending on the situation, the correlation with the team and need to adapt to the actual situation in relation to opponents.

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