ABSTRACT OF THE DOCTORAL THESIS

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Title of the thesis: THE ROLE OF MOTOR ACTIVITY IN EMOTIONAL INTELIGENCE DEVELOPMENT

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The doctoral thesis with the title „ THE ROLE OF MOTOR ACTIVITY IN EMOTIONAL INTELIGENCE DEVELOPMENT" is structured in 3 parts comprising 13 chapters, 39 sub-chapters, tables, graphs and annexes.

Part I, named "Theoretical aspects of motricity and its involvement in emotional intelligence area", represents the theoretical basis of the doctoral thesis and includes chapters related to the importance of education in young adults' personality formations, the relation between motricity and motor activities, psychological processes involved in motricity, emotional intelligence – factor of psychomotor development, and also aspects of inclusion of emotional intelligence in the educational curriculum at non-specialized higher education level.

Part II of the doctoral thesis is represented by a "Preliminary investigation of motor activities role in emotional intelligence development of young adults". By the means of this preliminary investigation, the conditions and methods for the gathering of data that stood as basis for the experimental study were verified.

This preliminary study was a general rehearsal for the experimental investigation and included testing and improvement of the questionnaire regarding emotional intelligence of young adults, on which the emotional intelligence factors measurements were based. The scope of the preliminary investigation was to determine the epistemological premises for emotional development and to produce the methodology for young adults' emotional intelligence development through Physical Education and Sports resources.

Part III represents a personal contribution on the emotional intelligence development through motor activities.

Research premises

✓ In modern society, the role of Physical Education and Sports increases significantly. Due to certain processes and phenomena related to modern civilization (the increasing role of technology, mechanics and IT in production and daily life; the increase in pace and pressure in daily life etc.) which lead to systematic overload of the nervous system, of the mental condition and affective-emotional area, physical

activities come to compensate the negative effects by producing a state of psycho-physical wellness.

✓ Our activity, as domain experts, has numerous formative effects, Physical Education and Sports comprising activities placed at the crossroads of physiological, psychological and social elements.

✓ The existence of studies in specialized literature that highlight the role of motor activities on young adults' development (development of identity, self-esteem and abilities) either while in formal education (school, university) or in their spare time.

✓ At the young age, cognitive interests become more intense and more selective, and the interests in inner life intensifies.

✓ Young adulthood (18/19 to 25 years) is an age at which ideals, goals and aspirations are united with practical, productive action, and also when abilities and major social interests begin to concur.

✓ The young age represents a stage that is not spared of turmoil and contradictions, due to specific psychological traits: enthusiasm for novelty, higher aspirations, but also an incomplete professional and social integration, which may lead to states of dissatisfaction or even conflicts.

✓ The particular characteristics of physical education classes, along with the individual characteristics of young adults make difficult the configuration of a universally valid model in respect of class content, iteration number, effort localization, aspects that require permanent adaptation.

The **scope of the experimental investigation** is to identify some aspects and methods to conceive motor activity programs, employing means from sports branches, such as basketball, volleyball, aerobics, in order to develop certain areas of emotional intelligence (recognition of own emotions, productive handling and use of emotions, empathy, interpersonal relations tackling).

This paper intends, through use of the aforementioned programs, to identify the role of body activity in structuring the emotional-affective system in young adults, obtaining positive effects in both psycho-motor and personality areas.

Research hypotheses

A. By employing means specific to certain sports branches (basketball, volleyball, aerobics), beneficial effects are obtain in the emotional intelligence manifestations and of certain sides of young adult's personality.
B. It is presumed that motor activities executed during physical education classes are moderating variables for the psycho-behavioral area, in the direction of increasing the interest and practice frequency for motor activities by young adults.

Experimental investigation variables

In this study, the *variables* taken into account are the following:

A. Emotional intelligence:

V1 = Recognition of own emotions
V2 = Smart handling of emotions
V3 = Productive use of emotions
V4 = Empathy
V5 = Interpersonal relations handling

B. Subjects' physical activity levels

V1 = Frequency of physical activity practice
V2 = Physical activity commonly practiced
V3 = Interest in physical activity

C. Personality factors

V1 = Nervousness
V2 = Aggressivity
V3 = Depressiveness
V4 = Self-control
V4 = Extroversion/Introversion
V6 = Masculinity/Femininity

Investigation methods and techniques

- Bibliographic study method
- Survey method
- Measurement and evaluation method
- Experimental method
- Processing and interpretation method

Investigation setup and deployment

Investigation deployment location and duration

The investigation took place in the gymnasiums of Bucharest University of Economic Studies.

The effort applied by the subjects was the same as stipulated in their curriculum, i.e. one Physical Education and Sports class for the first year students.

The training materials consist in the specific conditions of the aerobics hall (video projector, projection screen) and in the specific conditions of the gymnasium, with size and facilities required by basketball and volleyball practice, fitted with the

following apparatuses, devices and accessories: fixed ladders, simple, horizontal, fixed gymnastics benches, gymnastics mattresses, medicine balls, jumping ropes.

The preparations, measurements, trials and testing took place in these halls.

The investigation was carried out in the 2014-2015 academic year, over 22 weeks, i.e. 22 Physical Education and Sports classes.

This investigation comprises a number of 3 studies that highlight the importance of motor activities in emotional intelligence development.

Subjects

The groups taking part in the experiment enrolls first year students from the Marketing, International Relations and Business Administration in Foreign Languages faculties.

The projected sample size is 103 students, age between 19 and 26 years. The sample is randomized, using the random selection technique. For the psycho-pedagogic/methodic investigations, where subjects cannot be selected without the risk of rendering group ranks incomplete, parallel groups are taken as experiment and control groups, considering that the randomness factor acted during the initial group setup.

The samples are representative and does not differ in the essential characteristics from the general population from where they were selected.

For the scope of the experiment, subjects were distributed as follows:

- "GC" group (25 subjects) was the control group, for which the independent variable value is zero
- "GE1" group (26 subjects) was the experimental group on which an independent variable (V1) operated – operation system using volleyball specific means
- "GE2" group (26 subjects) was the experimental group on which an independent variable (V2) operated – operation system using basketball specific means
- "GE3" group (26 subjects) was the experimental group on which an independent variable (V3) operated – operation system using aerobics specific means

Investigation deployment

The experimental investigation started at the beginning of 2014-2015 academic year.

The investigation consists in the application of *intervention programs, using means of basketball, volleyball and aerobics*, as well as of a *"Jacobson" relaxation*

program with the scope to increase emotional intelligence manifestation levels in young adults.

The evaluation is done by applying the following questionnaires:

a) Alpha-Fit („Physical Activity Questionnaire");
b) Emotional intelligence measurement
c) Horst H. Stewart personality test, structured on 6 dimensions, namely: nervousness, aggressivity, depressiveness, self-control, extroversion / introversion and masculinity / femininity.

Conclusions

The investigation on which this paper was based aimed at a deeper understanding of the problems surrounding the role of motor activity in emotional intelligence development of young adults from the economic studies academia (Bucharest University of Economic Studies).

After a critical *analysis* of interdisciplinary *specialized literature*, the following conclusions can be drawn:

- Many activity fields show an increased interest in emotional intelligence development, observing it in the context of young adults' personality formation.
- Last decades' research focused on the tendency to theoretically found the concept of emotional intelligence, proving its importance in personal development and in socio-professional insertion, while current scientists' efforts in this area continue to produce remarkable results.
- Emotional intelligence development, by means of motor activities, involves establishing constructive social relations between trainer and trainee, trainee and trainee, trainee and parents, trainee and community. The identity and future of young adults are determined not only by academic results and intellectual performance, but also by their emotional and spiritual wellness.
- The main actors involved in education (students, teaching staff) have assimilated and developed applications of the new paradigm circumvented to the "emotional intelligence" icon.
- In the light of the higher education reform, physical education curriculum needs to establish new relations between knowledge, valorization and action.
- Physical Education and Sports is an area which, through its specific functions and objectives, takes part in the formation of personal socio-cultural and characteristic values in young adults, such as: personal and social responsibility, respect for other people's rights and feelings, involvement, effort, motivation, will, self-drive, cooperative assertiveness, fair-play, courage, healthy lifestyle formation through physical exercise.

After administration of the questionnaire for measurement of emotional intelligence in young adults and processing of the results in the *exploratory study*, it was revealed that subjects were mainly oriented toward:

- Relationship management (average score: 2.53) – emotional intelligence dimension that captured subjects' orientation toward conflict management (resolving disagreements), leadership (the role of leader), team-work (working together with other individuals form the same team to reach a common goal) and communication. Following the analysis, it was shown that a significantly higher score is attained by "conflict management" (average score: 2.68), followed by "leadership" (average score: 2.63) and "communication" (average score: 2.54).
- Recognition of inner states (average score: 2.42, on a 1 to 4 scale) encompassed knowledge of the way emotions combine and change in time, being significant for the interaction with other individuals and for better self-understanding. We consider that the average score reached by the investigation subjects for the "recognition of inner states" criteria is a low one. This suggests that young adults do not possess a very good understanding of the way feelings may change in time.

The administration of ALPHA-FIT questionnaire during preliminary investigation aimed at establishing subjects' level of physical activity. The results analysis showed the followings:

- Subjects' physical activity level is generally assessed as low (36.4%) and very low (20.0%).
- Physical activity practice frequency varies as follows: once a week (38.2%), twice a week (30.9%), at least 4 times a week (30,9%).
- The sportive activities most commonly practiced are aerobics, basketball and football.
- The interest in physical activity record a low percentage, 34,5% of the respondents having an interest in having physical activity as regular part in their life.

Based on the results obtained, we may consider that we have built a profile of the young economist from the stand point of their emotional intelligence and their physical activity level, **confirming the hypothesis** stating that *"by investigating the subjects of the survey, it is presumed that relevant and accurate data regarding the main dimensions of emotional intelligence (inner states recognition, others' feelings recognition, relationship management, inner states management) will be collected, as well as data on subjects' level, frequency and interest on physical activity"*.

The emotional competence development perspective requires future economists to improve their wellness by taking decisions and solving problems in a responsible manner, thus overcoming constant solicitation and stressful events from their daily life.

The training programs and strategies used in higher education process in the field of Physical Education and Sports for development of emotional intelligence (*experimental investigation*) represent the system of psychological indicators (interest, level of motor activities practiced, awareness, attitudes, engagements, aggression, self-restrain etc.), through which quality and efficiency of the preparation process is assessed.

- **Physical activity level evaluation** (using the Alpha-Fit test). *Physical activity practice frequency*, in the final test, observed an increase of average score in all three experimental groups.
- In the final test, the *interest in physical activity* significantly improved for all three experimental groups, more than half of the participants in these groups being very interested in physical activity. The probability quotient calculated using *Student's dependent t-test* shows a *significant difference* between the two tests, over all three experimental groups.
- Systematizing the recorded results and their corresponding interpretations, we can conclude that **the hypothesis** stating that *"It is presumed that sportive activities carried during physical education classes are moderating variables for the psycho-behavioral area, in the direction of increasing the interest and practice frequency for motor activities by young adults"* **was confirmed.**
- **Emotional intelligence evaluation**. Through summarization and analysis of answers for the emotional intelligence measurement questionnaire, we observed that all three experimental groups are *significantly superior* to the control group from the stand point of emotional intelligence. On average, the students from the control group obtained scores indicating average, satisfactory emotional intelligence, while the students in the other three experimental groups obtained good or good to very good scores. This difference is demonstrated by the *probability quotient calculated using Student's dependent t-test* value.
- **Personality evaluation**. The analysis of post-testing personality factors shows a *significant decrease* in nervousness (GE2 – basketball, GE3 – aerobics), aggressivity (GE1 – volleyball, GE2 – basketball), depressiveness (GE1 – volleyball, GE2 – basketball), self-control (GE3 – aerobics), irritability (GE1 – volleyball, GE2 – basketball). Furthermore, the extroversion factor observed a post-testing *significant increase* (GE1 – volleyball, GE2 – basketball), along with femininity increase in experimental group GE3 (aerobics).
- The results obtained from motor programs deployment determine us to affirm that the **hypothesis** stating that *"by employing means specific to certain sports*

branches (basketball, volleyball, aerobics), beneficial effects are obtain in the emotional intelligence manifestations and of certain sides of young adult's personality" **was confirmed.**

In our opinion, emotional intelligence has to become an organic part of the education process in the field of Physical Education and Sports, and the specialized teaching staff should become involved in finding solutions to decrease negative emotions and to enforce positive emotions in order to improve personal, social and academic performance.

Dissemination of investigation results in specialized scientific events

I. Articles / Studies published in professional journals

1. Porfireanu Maria – Cristiana, **Ristea Cristian**, Popescu Florentina, *„Study regarding, the evolution of model parameters to play basketball, women's world championships",* Revista Marathon, vol. VI, nr. 1, 2014, pg. 84-90

2. Porfireanu Maria – Cristiana, **Ristea Cristian**, Popescu Florentina, *Basketball Contribution To The Development Of Players' Personality,* International Scientific Conference „Perspectives in Physical education and Sport", Vol. XII, ISSUE 1/2012 Ovidius University Annals, Series Physical Education and Sport, Science, Movement And Health, ISBN 978 973 614 501 8
3. **Ristea Cristian,** Popescu Florentina, Porfireanu Maria – Cristiana, *Developing the students' motor capacity using means of the basketball game through specific programs*, Scientific Report Series Physical Education and Sport, nr. 15 (1/2011), Pitești, ISSN: 1453-1194

II. Articles / Studies published in volumes of scientific events

1. **Ristea Cristian, Sabina Macovei, „***The influence of motor activities on the development of emotional intelligence"*, **International Congress of Physical Education, Sport and Kinetotherapy,** *Education and Sports Science in 21st Century,* ICPESK, Bucharest, June 10-13, 2015)

2. Popescu Florentina, Porfireanu – Maria- Cristiana, **Ristea Cristian**, *Study regarding evolution of the model parameters on basketball game at the World Championships*, University of Craiova, Physical Education and Sport Faculty, 6TH International Conference Physical Exercises - a Complex and modern way

to Promote Healthy Living, april 04th – 05th 2014, BDI, ISSN 2286-3524, ISSN-L 2286-3524

3. Porfireanu Maria – Cristiana, Popescu Florentina, **Ristea Cristian**, *The influences of psycho ability in education of young people*, Ovidius University of Constanta, Faculty of Physical Education and Sport, Society of Human Excellence Science and Academic Sport, 14th edition, 23th – 24th May 2014, BDI, ISBN:978-973-614-813-2

4. Porfireanu Maria – Cristiana, **Ristea Cristian**, *The intelligence involved in tactical thinking and tactical behavior specific to the game of basketball*, Ovidius University of Constanta, Faculty of Physical Education and Sport, Society of Human Excellence Science and Academic Sport, XIIIth edition, 24th – 25th May 2013, BDI, ISBN cd: 978-973-614-772-2

5. **Ristea Cristian,** *The role of basketball in keeping students' actuating line,* Ovidius University of Constanta, Faculty of Physical Education and Sport, Society of Human Excellence Science and Academic Sport, XIIIth edition, 24th – 25th May 2013, BDI, ISBN cd: 978-973-614-772-2

6. **Ristea Cristian,** *Basketball Contribution To The Development Of Players' Personality, Constanța 2012*,Ovidius University Annals, series Physical Education and Sport, Science, Movement and Health,International Scientific Conference „Perspectives in Physical Education and Sport", vol XII, ISSUE 1/2012, BDI, ISBN 978 973 614 501 8

7. **Ristea Cristian,** *Study regarding the efficiency of specific means in the basketball game aiming to develop the coordinative capacities*, Impactul finalităților sistemului educațional și de cercetare științifică asupra performanței sportive din România, Forumul Științific Național Școlar și Universitar, Finala competiției științifice, Ediția a III-a, 9-10 decembrie 2011, București, vol. III, nr. 2/2011, pg. 86

8. **Ristea Cristian,** *Developing the students' motor capacity using means of the basketball game through specific programs*, SRSPES is a peer-reviewed scientific journal of the full texts of, 4th Annual International Conference: Physical Education, Sport and health, Pitești, 18th-19th of November 2011, Romania, ISSN 1453-1194, pg. 589

9. **Ristea Cristian,** *Sports team and leadership,* Conferinţa Ştiinţifică Internaţională "Noi evoluţii educţionale sportive, manageriuale, kinetoterapeutice şi de timp liber în context european", Braşov, 2011

10. **Ristea Cristian,** *Study about the possibilities to develop the group cohesion in disabled children,* International Scientific Conference "Perspectives in Physical Education and sport", Constanţa, 2011, BDI, ISBN: 978 973 614 501 8, pag. 71 Ovidius University Press

11. **Ristea Cristian,** *Study about the increase of physical education lesson efficiency using contest and game as means and methodos,* International Scientific Conference "Ten years of research in physical education and sport", Galaţi 2011, ISBN: 978 606 8348 00 , pag. 81

12. **Ristea Cristian,** *Contribuții la elaborarea unei programe de pregătire fizică pentru o echipă universitară masculină de baschet, S*esiunea Internațională de Comunicări Științifice – "Tradiție și perspectivă în educație fizică și sport", Academia de Educație Fizică și Sport, București, 2007, - ISBN 978-973-718-755-0