

SUMMARY OF PHD THESIS

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Thesis title: CONTRIBUTIONS TO THE IMPROVEMENT OF THE PHYSICAL CONDITION OF STUDENTS OF ECONOMIC EDUCATION THROUGH SPECIFIC MEANS SPECIFIC TO ATHLETICS

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Physical education in higher education achieves an optimum link between "to be" and "to become", in a balanced transition that favors full expression of student's motric, mental and social potential.

The frequent changes, the faster pace of life, led to the research on the importance of physical education in schools and faculties, as a fundamental dimension of general education. Lack of physical activity leads to excess weight favoring the occurrence of obesity and other chronic conditions such as cardiovascular diseases and diabetes. They affect quality of life and endanger the lives of people concurrently creating problems to economy and to the health budget. The interest of students for sports must be cultivated and maintained all the more so the tendency to switch from the active role of practicing physical exercises to the role of passive sports spectator/consumer develops at the age of 18-19 years old.

The thesis is divided into 3 parts and 10 chapters as follows::

- **PART I** – General framework of the studies and researches carried out in the current socio-economic context.
- **PART II** – Preliminary research on the importance and role of physical education in higher economic education
- **PART III** – Personal contributions to the development of physical condition of economic education students by athletics

Each part of the thesis is, in its turn, made of several chapters, as follows:

First part consists of 3 chapters: **Chapter I** - Theme's actuality and importance in the science field of Physical Education and Sports, **Chapter II** – Higher education in Romania - the role of physical education in non-specialized universities and **Chapter III** – Athletics, basic discipline in the development of physical condition of economic education students.

Part II also consists of 3 chapters: **Chapter IV** – Preliminary research - Operational methodological framework, **Chapter V** – Organization and conduct of research and **Chapter VI** – Analysis, processing and interpretation of data obtained from preliminary research

The last 4 chapters form **the third part**: **Chapter VII** – Experimental research on the development of students' abilities during the physical education class and during leisure time, **Chapter VIII** – Operational approach of experimental research, **Chapter IX** – Analysis and interpretation of research results and **Chapter X** – Conclusions and proposals

Introduction

As early as the XVIIIth and XIXth centuries, actions were reportedly taken to extend certain physical education systems outside the countries of origin leading to a rapid progress in the sports activity.

In 1973, Guts Muths published the work called „Gymnastik für die Jugend” underlying the introduction of gymnastics in schools and institutions. At the end of the XIXth century, England stands out by the "Modern Olympics", idea formulated by Pierre de Coubertin.

At first, the concern for youth's physical training was subject to military trends. As of 1940, in Italy and Germany, physical education became mandatory in higher education, being also included in the university curriculum. The modern organization of physical education is often mistaken for the beginnings of university sports events.

The complex content, whereupon particularities of various cultures and civilizations have contributed over time, helped the physical education and sports to become human's daily preoccupation.

Physical training has progressed developing and defining new ways of understanding the role it plays in the life of man and society.

The stabilization of Europe's position in the world has called European universities to permanently streamline the educational process offered to its citizens. The discovery of personal performance requires a higher education system.

Nowadays, information and knowledge are the main factors of development, therefore the importance of Universities increases. They shall ensure the normal development of a society, aiming more distant values.

Throughout his life, man tends to perfection, implicitly to his physical, intellectual and moral perfection, aiming his transformation into a useful person. One of his day-to-day concerns is health, reason which led him to understand the necessity of practicing physical exercises.

The sports activity has an important social role in today's society, which is characterized by sedentary lifestyle, stress and aggressiveness.

Mass sports, outdoor movement, swimming improve human physical condition, implicitly the quality of life, and sportsmen acquire a set of knowledge and skills beneficial both to them and to the society.

Movement (jogging, fitness, dancesport, kempo, kangoo jump, etc.) contributes to a positive self-image, to the implementation in day-to-day activity of self-regulating mechanisms for the psycho-behavioral states.

Physical exercise, or also called "miracle drug", truly and positively influences health, the effects being as follows:

- harmonious physical development;
- maintaining optimal health condition;
- ensuring the necessary physical, psychological and psycho-motric framework of subjects from other fields and other areas than those of physical education and sports;
- development/cultivation of a/some motric activities/actions required for specific professional, social and leisure activities;
- development of a basic motor skill in each individual's tenacity;
- promoting regular physical training and their turning into a healthy lifestyle;
- obtain / maintain physical condition;
- maintaining optimal health.

Physical education classes, in terms of physical education professor, offer students the minimal skills and motor skills useful in the day-to-day life, motivating and guiding young people towards activity and to achieve goals. The motivation underlies the stimulation and orientation of subjects towards activity being one of the decisive factors of successes.

In college, physical education professor provides continuity to a level higher than the one in pre-university school of physical training, aiming that, upon graduation, the student could be at high parameters of motor development and physical training.

Conclusions of the first part

- Diversification of forms and methods of physical education contributes to the professional training of students. Acquiring and training students' motor skills have favourable influence on professional training.
- Athletics-specific operational structures contribute to the development of students' motor skills in order to ensure the necessary physical fitness.
- Physical education and sports should be the constant preoccupation for all factors responsible for the preparation and training of professors
- The quality of physical education comprises the conduct of this activity, intended objectives, highlighting training's contents.
- Physical education and sports seeks to physically develop students, to strengthen students' physical health status, participation in sports competitions, to enhance capacity for effort.

The goal of the research consists in highlighting a sports discipline, *athletics* in our case, on the evolution/development of motor skills during physical education classes held with students of the Faculty of Accounting and Bookkeeping Information Systems of the Artifex University. This process was aimed to identify the effects resulting from the implementation of training programmes and operational structures proposed in research, specifically intended for the development of motor skills, the effects being reported in terms of quantity and quality of biological and motric changes.

- Identification of the main features of occupational profiles that students study in the non-specialized faculties and their turning into training objectives capable of being carried out with the help of training programs specific to athletics.
- Rethinking and restructuring of the physical education and sports teaching process in higher education (Faculty of Accounting and Bookkeeping Information Systems), in accordance with the requirements and demands of the professional profiles that students study in the faculties of economic profile.

Research objectives:

- The study of topic-related specialized literature, discussions with physical education experts in higher education, in order to establish theme's current status of knowledge and research. Additionally, I intended to achieve a good knowledge of young

people's somatic and functional peculiarities and how these influence the development of motor skills.

- The specification of conceptual issues regarding athletics discipline in physical education in higher education, with influence on the development of students' motor skills
- Presentation of the role and importance of athletics in physical education and sports system.
- Development and experimentation of programs specific to developing motor skills in athletics, experimental determination of more effective practice methods among students in higher non-specialized education.
- Elaboration and testing of control samples that can objectively measure performances and determine the evolution of motor skills.

Preliminary research prerequisites

The operational interpretation of the preliminary research relies on the following prerequisites:

- Man's functional independence and social integration are achieved through physical activities designed for the entire lifetime, resulting in a good physical condition.
- Specific components of physical condition provide optimal physical functionality and continue as the man grows older
- Practicing regular physical training is conditional on the sports education acquired throughout life and on the role played by the physical education professor during college.
- Based on the knowledge of morphological and functional peculiarities specific to the age of 18-26 years and on the understanding of the university education system, an array can be structured so as to lead to finding solutions to implement motor skill building programs.

Preliminary research assumptions

- Building physical fitness by athletics-specific methods positively influences the active life of students of Finance-Banking faculties, respectively Economic profile.
- Implementation of athletics-specific training programs improves the possibilities to enhance physical fitness of students from non-specialized faculties.

The test group included a number of 80 subjects from the first year of the Faculty of Accounting and Bookkeeping Information Systems.

The physical education subject is included in curriculum with one class per week (100 minutes duration), as a mandatory. The groups are set up depending students' options, the classes being conducted per sports disciplines (basketball, football, volleyball, table tennis, aerobics).

The groups selected for research held physical education classes in the gym of Bucharest ARTIFEX University and on its sports ground. Measurements and tests on subjects were conducted in accordance with the training programme.

The activity was organized according to the analytic programs, covering topics from athletics planned from November 2010 to May 2011, aiming to meet objectives according to the curriculum for physical education subject.

All the groups were subject to initial and final tests, carried out at one-year interval (October 2010 - May 2011). The subjects from experimental groups were subject, in addition as compared to the others, to specific training tests.

The experiment aimed at verifying the implementation effectiveness in physical education classes of the experimental curriculum for appropriation of athletic means in order to optimize the educational training process.

Preliminary research findings

- General physical activity, carried out in the simplest possible way, influences positively the lives of young students and not only them, the professor facilitating a successful "start" for them and, concurrently, building the long-time habit of practicing physical activities and leisure. A successful start means learning to practice physical exercises and developing the cyclic ability to carry out "leisure-type physical exercise".
- Though absences have been increasing over the last years, students have the advantage to practice physical exercises, and results are notices in the evaluation of tests conducted according to the university curriculum.
- The curriculum for tutorials for physical education classes is organized so as to stimulate the desire of knowledge and classes must be organized so as to ensure the successful practice of leisure-type physical exercise after- school, as well as after graduation.

Research prerequisites

The operational interpretation of the preliminary research relies on the following prerequisites:

- Man's functional independence and social integration are achieved through physical activities designed for the entire lifetime, resulting in a good physical condition.
- Specific components of physical condition provide continuous physical functionality and continue as the man grows older.
- Practicing regular physical training is conditional on the facilities offered by community and environments in charge with physical training.
- Based on the knowledge of morphological and functional peculiarities specific to the age of 18-27 years years and on the understanding of the university education system, an array can be structured so as to lead to finding solutions to implement motor skill building programs.

Research assumptions

- It is possible to develop students' physical condition by athletics methods during physical education classes in non-specialized faculties.
- The proper systematization of the main methods that act on the development of motor skills enhances the possibilities to build up physical condition.

Conclusions drawn from the theoretical approach

As I stated in thesis assumptions, we can take the opportunity to draw a series of conclusions that confirm the assumptions and which, in the end of the thesis, properly explain the issues we approached:

- The methods specific to physical education and sports, specifically to athletics, had beneficial effects on students' health and on quality of life indicators during the experiment.
- There is a clear relation between the quality of human life and the way of spending leisure time, the proof of a developed society being the high ratio of people doing sports among the population
- Our studies maintain and reconfirm the idea that the systematic practice of physical exercise and athletics-specific methods have beneficial effects on mental, physical, social levels and beyond.
- Not only national studies, but also international studies, show that regular leisure-type physical training can counteract the effects of harmful factors in the contemporary human life, without requiring a specific material base.
- Modern lifestyle, the advent of gadgets, online information have "won" in front of practicing leisure-type physical training among students and young people who graduate non-specialized faculties.
- Those who want to address the obvious physical condition optimization can only do so provided they gradually get to an active lifestyle.
- In higher non-specialized education, the only way to improve physical activity, physical condition and to adopt a healthy lifestyle is the physical education and sports class.
- Physical education classes provide minimum exercise needed and help maintain quality of life and physical activity all along.

Practical application conclusions

Below we present conclusions arising from practical approach of the work itself:

- Active and conscious practice of physical exercises is an important indicator of quality of life and is also considered an indicator to assess the level of social development.
- The parameters analyzed in the two tests, the initial and the final test, in the *control group*, are significantly different from statistical point of view, the rate being 89% (table no.117) for 8 parameters (weight, speed running with standing start position, resistance running, long jump without sprint, exercise no. 4 - push-ups, trunk lifting from lying down on the back position, body mass index and Quetelet index) out of 9.

The parameter for which differences are not significant is the waist that is 11% in terms of percentage. Averages obtained by subjects in final tests for those 8 parameters indicate a positive evolution as compared to the initial test, specifically the scattering data is *homogeneous* in 33% of the cases, 44% *relatively homogeneous* and 23% *heterogenous*.

- Following the verification of statistical assumptions, the null hypothesis at the waist was rejected by using the "t" test (which verifies the null hypothesis), significance threshold (p) calculated being less than 0.05. (table no.117)
- In the *experimental group*, the values of the parameters analyzed in the two tests, initial and final, have significant differences from statistical point of view to 5 parameters, the rate being 56% (speed running with standing start position, resistance running, long jump without sprint, exercise no. 4 - push-ups, trunk lifting from lying down on the back position), the other 4 (weight, waist, body mass index and Quetelet index) having insignificant differences, i.e.the rate was 44%. (table no. 118)
- Averages obtained by subjects in the final test to the 5 parameters (speed running with standing start position, resistance running, long jump without sprint, exercise no. 4 - push-ups, trunk lifting from lying down on the back position) show us an improvement in performance as compared to the initial test, the difference in averages in question for each test being statistically significant (table no. 118). We believe that progress is due to the training programmes proposed and applied in the experiment.
- By comparing the results obtained by the *two groups*, in the final tests, significant differences in terms of the statistical parameters are observed (speed running with standing start position, resistance running, long jump without sprint, exercise no. 4 - push-ups, trunk lifting from lying down on the back position), namely in 56% of the tests, and the other 4 indicators (weight, waist, body mass index and Quetelet index) having insignificant differences (44%). Averages obtained by subjects of the two groups in the final test show us enhancement in the performances of the experimental group.(table no. 119)
- The implementation of the training programmes proposed in the study (running training, middle distance race, throwing, jumping, the long jump without sprint - table no. 77) led to better results in the experimental group as compared to the control group.

Proposals

- Specific athletics methods can be applied during physical education and sports classes, with tested positive effects.
- In the training process, a basic requirement is the effect and the understanding of operational motor skill objectives by students of non-specialized faculties, so as to facilitate their implementation in the end.
- Generally, due to the relatively obvious absence of equipment and other means in the inventory of non-specialized universities, the physical education and sports class can

be largely conducted outdoors in all seasons. The physical education class is the primary means of training, carried out in special conditions, in order to meet the intended objectives.

- Motivation and raising awareness of students on the athletics methods is essential in achieving optimum physical condition, so that the result can constantly be a better quality of life .
- Leveraging research results and their application by the physical education profesors in higher education.
- The operational structures presented in this paper, based on the athletics specific methods, applied in our experiment, led to higher values for motor parameters.
- The application of athletics in physical education classes and sports in higher non-specialized education demonstrates the effectiveness of progress registered by subjects in the tested groups.