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Universitatea "Lucian Blaga" din Sibiu

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*Facultatea de Științe*  
*Departamentul Științe ale Mediului, Fizică, Educație Fizică și Sport*  
*Domeniul: Educație Fizică și Sport*

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# **FAIR-PLAY**

## **REVISTĂ ȘTIINȚIFICĂ ȘI PEDAGOGICĂ**

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## **E-Learning in sport training**

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### **Abstract**

*Aim: The aim is to highlight the use of e-learning platforms within the sports phenomenon and to discover the concrete ways in which e-learning is carried out in sports and to design a theoretical informational system in E-learning assisted training*

*Methods: The analysis of the specialized literature found in the use of keywords, with reference to these aspects: in the Web of Science database.*

*Results: A number of 25 articles resulted, of which 10 relevant articles were included in the research. Materials published in English and publications presenting new aspects of e-learning from the perspective of sports training and competition were considered. The selection criteria for articles found in the following situations: studies that have specific results for sports training and sports competition, articles published in the period 2020-2024, to eliminate information that is no longer current, articles in which conclusions are found with reference. to the sports phenomenon*

*Conclusions: The conclusions of this study suggest that e-learning platforms have a great utility in the sports phenomenon, involving changes in the characteristics of education among athletes, coaches and students.*

*Keywords: e-learning, sports, sports training.*

### **1. Introduction**

#### **1.1 E-learning concept**

In the current context, of a complex training process, with rapid transformations and changes, affected by a multitude of direct and indirect factors, communication on the Internet is absolutely necessary. And reference is made to the main ways of communication, starting with learning assisted by information platforms, computers and the Internet.

Generally, an e-learning platform is an online system that facilitates the process of distance learning, which provides educational resources, communication tools and course management. These platforms allow students and instructors to access course materials, participate in interactive activities, collaborate, take tests, and monitor academic progress, all in a virtual environment. Common examples of e-learning platforms include Moodle, Blackboard, Google Classroom, and Coursera.

#### **1.2 Ways of using E-learning**

As a specific method in sports training, E-learning can be used in different ways: Athletes can access online courses, video tutorials, articles and research on training techniques, nutrition, recovery and other aspects relevant to sports performance.

Coaches can use e-learning platforms to deliver personalized training programs, track athlete progress and provide real-time feedback.

Platforms enable effective communication between coaches, athletes and other team members, facilitating discussions, information sharing and coordination of activities.

Using software and applications integrated into e-learning platforms to analyze training and competition data, helping athletes understand and improve their performance.

Access to resources on sports psychology, motivational techniques and stress management essential for athletes' performance and health.

## **2. Organization of the research**

### **2.1 Aim of the research**

It is aimed to carry out a review of the specialized literature, in order to highlight the following aspects:

- the use of e-learning platforms within the sports phenomenon;
- discovering the concrete ways in which e-learning is carried out in sports.

Then, it is desired to design a theoretical informational system in E-learning assisted training.

### **2.2 Material and methods of the research**

The analysis of the specialized literature consisted in the use of keywords, with reference to these aspects: e-learning in sports, e-learning in sports training, in the Web of Science database. A total of 25 articles resulted, of which 10 relevant articles were included in the research. Materials published in English were considered.

Publications considered include new aspects of e-learning from the perspective of sports training and competition.

The selection criteria for the articles consisted of the following situations: studies that have specific results for sports training and sports competition, articles published in the period 2020-2024, to eliminate information that is no longer relevant, articles in which conclusions are found with reference to the sports phenomenon.

## **Results**

Stănescu M. and Mușat N. (2015) emphasize the fact that e-learning is a training system increasingly used in various professions and occupations related to sports activity: sports advisor, manager of sports organizations, organizer of sports events, sports steward, referee, nutritionist, sports journalist.

Research conducted on medical students in London, highlighted the importance they give to physical activity, but also their dissatisfaction with the lack of teaching in the current medical curriculum. In this regard, e-learning tools are used, such as MEGA - MEDic GAMing, to introduce physical activity into the undergraduate curriculum. But, at the same time, it aims to carry out a practical physical activity, face to face. Basically, a mixed activity is suggested. (Carter-Roberts, H., et al., 2021)

A study carried out in the Spanish province of Cantabria, analyzes the influences of e-learning training on the skills of basketball coaches. It was concluded that e-learning training is a very effective training method for basketball coaches. (Alemany-Iturriaga, J., et al., 2024) Glang A. et al. al (2010), from the University of Oregon - USA, conducted research in which an interactive e-learning program was used to train coaches of athletes aged between 10 and 18 years. It was concluded that the ACTive e-learning program is an effective method of training coaches with an emphasis on reducing injury risks. To prevent the use of



performance-enhancing drugs in leisure sports and fitness activities, Barkoukis V. et al., (2022) created an e-learning course with educational themes about doping.

Bucea M. et al (2017) administered an online survey to teachers from two universities with sports science programs in Romania, to find out the degree to which they were prepared for online teaching during the pandemic. "Universities can become sustainable if they positively integrate e-learning into their teaching system and strengthen their quality standards from an e-learning perspective."

Professors from the Faculty of Physical Activity and Sport Sciences of the Catholic University of Valencia have designed an e-learning project dedicated to coaches in Olympic combat sports: judo, wrestling, fencing, taekwondo and boxing. The aim was to enrich the theoretical knowledge, the specific and practical knowledge of the coaches. (Ruiz, S. et al., 2017)

Codella R. et al. al (2023), states about doping that "it is a public health problem that threatens sport and society". In this context, they initiated the I Run Clean project, addressed to athletes and the team around them, which promotes personal values and clean sports behaviors, while reducing the risk factors associated with doping.

Through the article by Izzicupo P. et al (2021), it was found that during the COVID-19 pandemic, competitive sports promoted an active lifestyle among student-athletes. They made a lot of use of home training and e-learning during the lockdown, which helped them manage the situation better.

The research carried out in Yakutia, which uses the method of mathematical statistics to monitor the training process of future physical education teachers and sports coaches through the use of Distance Learning - DL technology, is noteworthy.

## **Conclusions**

The findings of this study suggest that e-learning platforms have great utility in the sport phenomenon, involving changes in learning characteristics among athletes, coaches and students.

The idea that advanced technologies, and in this case e-learning platforms, are very important components in sports, playing an important role in improving the training, competition and evaluation processes, is very topical. Thus, it is proposed to use an information system and its connections for E learning (fig. 1)

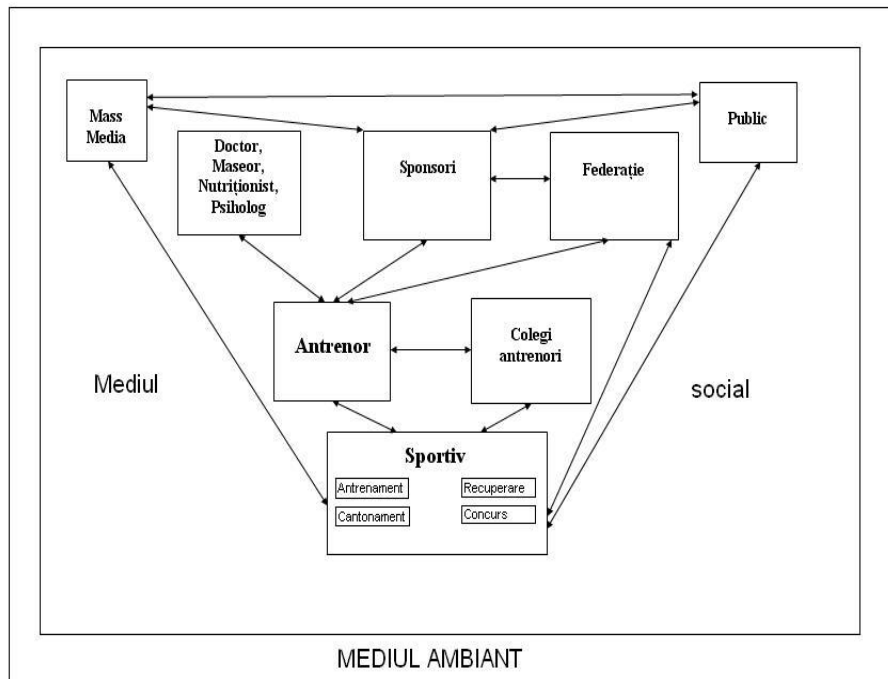


Figure 1. Scheme of the informational system in E-learning assisted training

## 5. Discussions

When the coach prepares several athletes (possibly a team), it is possible that they are at a given time in different places and situations:

- near the trainer or even during training;
- in the training camp (called to the national or Olympic team);
- for recovery (after an accident or a demanding competition);
- traveling for competitions or training in other areas (other countries, weather conditions).

Many times, the coach has to come into direct contact with the athletes in these (or other) situations and give them complex and diverse training instructions. Conditions must be created in such a way that there is a useful and quick communication between the athlete and the coach. When the athlete is, for example, at a medical test, the coach must see the subject's medical parameters online.

Athletes often travel with federal or team coaches and a direct connection must be maintained between the athlete's coach and them. The Federation is in permanent contact with the coach, the team coach, the sponsor, or the athlete. The information, knowledge, training, nutritional, psychological indications, connection with the mass media, the federation, sponsor, public, indisputably require communication and learning via the Internet or on specialized platforms in this regard.

The athlete "feels" the public even during the contest (match). The more the audience is gathered (concentrated), the faster and more eloquent the communication between it and the athlete. In the marathon and marching events, where the public is "diluted" along 20, 35 km or 42.195 km, this is not possible. Immediately after the end of the race, the emails received, the

television and the Internet communicate to the athlete the direct opinions of the public or those directly or indirectly involved in the training process.

If, a few years ago, we waited many hours until the comments and possible measures appeared (the next day's press), now things are happening much faster. The athlete can get in touch directly with the coach located thousands of km away for possible advice and training schemes (even visualized directly on the laptop, or possibly listed). If the competition tests are at short intervals, this communication and learning on the Internet can become extremely effective.

Even the electronic panels on the edge of the running track can transmit information that informs the athlete about the race situation and about his potential penalties related to the technique of the marching event.

The connection between doctor, nutritionist and athlete has never been faster and more efficient than now. Any health, nutritional or psychological problems can be solved after a direct discussion with the athlete by email or messenger. Some information can also be viewed in this situation. This way of communicating with the coach is particularly beneficial for the athlete, because they feel closer to each other (compared to the telephone), possibly the physiognomy of the athlete and the coach are visualized.

The links between the elements involved in training are multiple and complex. It is difficult to say which of these elements has a greater influence on the training of the performance athlete. Of course, the influences are different from one period to another. There are times when the decisions are taken by the federation, sometimes by the sponsor, other times by the doctor, probably most of the time by the coach following consultations with factors involved in the training process. Everything takes place within a social environment, which in turn is integrated into the most complex system, the environment.

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## Measuring in motor activities

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### Abstract

*Activity in any field is increasingly influenced by decisions based on quantitative information. In most cases, measurement is the primary source of this information. It is included in various actions: observation, experiment, exploration, prospecting, verification, analysis, trial, testing, diagnosis, control, attestation, etc.*

*In contemporary technology, measurement has become an essential component, present in all stages, from conception to the final product, therefore some terminological clarifications are required.*

**Keywords:** *measuring, physical education, anthropometry.*

### 1. Introduction

Measurement is a basic component of the knowledge process, it intervenes whenever the need for quantitative determinations arises, to establish an order of magnitude.

Measurement represents the action of determining a quantity, the quantity being always measurable. In this sense, Thorndike (1983) stated: "If a thing exists, it exists in a certain quantity. If it exists in a certain amount, it can be measured."

Therefore, measurement is a relation, a function by which an object corresponds to a number and only one. The fact that, for repeated measurements, an object can be assigned different numbers, should not mislead us: for a certain measurement, the object is assigned one number and only one. A function is an assignment rule that must be clear enough to allow an object to be uniquely assigned a number and at the same time allow us to decide what number should be assigned to it. At the same time, it must be simple enough to be used.

Measurement makes it possible to characterize different properties or attributes in quantifiable terms, so that a meaningful interpretation of the comparison of the numerical magnitudes of two such properties becomes possible. However, according to M. Epuran (2005), measurement does not only refer to the quantitative or extensive characteristics of an object, but also to the qualitative and intensive ones.

In addition to the actual determination of the value of a certain parameter with the help of empirical operations, measurement also includes a series of elements of a conceptual nature, sometimes even conventional (for example, inventing a measurement scale or choosing a measurement unit).

### 2. Definitions of measurements

- measurement is the conceptual and empirical operation by which certain values are assigned to some parameters of objects and processes;

- measurement is the process of assigning, according to precise rules, an (imprecise) number to the measure of a characteristic;

- "measurement is the process of assigning numbers to the properties of objects (persons, phenomena) according to certain rules, so that the numerical relations represent the relevant relations between the objects" (M. Epuran, 2005);

- measurement is the process by which the quantitative determination of a characteristic is reduced;

- measurement is the process by which the quantitative characteristic (of an object, phenomenon) is assigned, according to a precise rule, an imprecise number (unlike the evaluation process, where it is assigned a value, and unlike its label, where it is assigned a category).

### **Meanings of measurement**

1. In a narrow sense - when the measurement is designed as an experimental operation, which applies to some strictly quantitative quantities. In this case, the standard has a real meaning, of the same nature as the object to be measured, or is defined based on immediate realities. The assigned numbers are integers, rational numbers, etc.

Measurement theorizes the model of measuring physical quantities. Due to its rigor, it is also called the ideal measurement model. But, like any measurement, it fails to satisfy all the rules, not even in the case of physical objects and processes. It is known that any high-precision physical measurement is based on an exchange of energy between the object to be measured and the measuring device. This changes its state during the measurement of the disturbance. So, not all information can be measured objectively, that's why we don't practically start from a total determination.

2. In a broad sense – when measurement is applied to psychological, pedagogical and social processes. In this case, it includes all quantitative determinations consisting in assigning values to objects or their properties, in accordance with certain rules. This is where classification and coordination operations come in, even if they do not always lead to a numerical string of assigned values, but to a series of numerical values (symbols).

Consequently, it can be measured by:

- comparison;
- classification;
- assignment of quantitative values.

In this way, measurement extends to all quantitative determination operations aimed at establishing an order.

In Keringer's understanding, the measurement operation is expressed in the form of an entity taken from set theory:  $F = (X, Y)$ , where:  $x$  = any object, and  $y$  = a numeral.

But the most developed understanding of measurement belongs to Stevens (1959), who introduced all operations of assigning values to various objects and phenomena (or their properties), according to a series of referee rules, including classification operations.

It follows from this that the rules form the content of the measurement procedures. A certain measuring procedure cannot be better than its rules.

The legal definition of measurement includes all the operations through which a value assignment is carried out, to determine the quantitative dimension of the investigated

phenomena: frequency, order, intensity, development stimulus, probability. Thus, the universal character of the size of any object of knowledge, regardless of its nature, is recognized, as long as rules for assigning symbolic or numerical values can be established.

## **The component elements of one measurement operations**

### **Measurement operation**

It includes the following three elements: the object to be measured; unit of measure; the rules for assigning values, according to the properties of the object.

1. The object to be measured - it can be any object or phenomenon in the environment. In the sphere of motor activities, it can be: the body of the subject (all of its biological, physiological, somatic states), the abilities of the subjects and their manifestation, but also other phenomena from nature and from the society in which the practitioner of physical exercises is integrated.

Carrying out measurements, in one situation or another, requires the rigorous definition of the researched object, the measurement strategy to be adapted to the specifics of that object.

The object to be measured is presented in two poses:

- a. as a real object, with its natural dynamics and dimensions, some of which are known and others not, some are measurable, and others cannot be evaluated or estimated;
- b. as a defined, conceptualized object, constituted at the level of theory and the accessibility of knowledge tools, in particular, measurement tools.

The measurement tries to capture the magnitude aspects, the ways of manifestation of the object, depending on its properties. To capture its manifestations, they must first be described quantitatively, and then appropriate standards, benchmarks or units of measurement must be defined.

2. The unit of measurement – the object to be measured is analyzed, later, with the help of the standard, which can be assigned a series of values, numbers or symbols, depending on its properties. It is the basis of the comparative analysis of the researched phenomena, serving as the "common denominator" for all measurements made on the same dimension or the same type of dimension. In this case, to measure means to compare some size with a standard size and specify the difference between it and the standard, specifying by how much or how many times it is greater or smaller than the standard.

3. The rules for assigning values - the concrete ways of working lead to the construction of measurement levels or "scale" types, and these levels are defined according to the transformations that allow them to keep unchanged the empirical relationships expressed through the assigned roles.

The assignment of values has the role of relating the characteristics of the object to be measured to the type of accessible standard, that is, to make the measurement possible and to guarantee its correctness.

But the quantitative and the qualitative combine in variants, ways and proportions, from which it follows that the establishment of appropriate rules for assigning values will lead to different levels of measurement, from concrete measurements (measurement of time, space, etc.), to measurements approximate or simple (measurement and establishment of some functions).

#### Measurement accuracy

This is given by: the quality of the measuring instrument; the rigor of applying techniques and tools; conditions for the act of measurement.

#### The stages of measuring and evaluating an action

1. The clear definition of the person or the phenomenon, or some of their characteristics, that we want to measure.
2. Establishing the method we will use.
3. Choosing the devices we will use.
4. Determination of the conditions under which the measurement will be performed.
5. Carrying out the actual measurement.
6. Data recording.
7. Data processing.
8. Evaluation of results.
9. Interpretation of results.
10. Valorization of the results.

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## **The process of measurement in Physical Education. Evolving measurement mistakes**

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### **Abstract**

*Activity in any field is increasingly influenced by decisions based on quantitative information. In most cases, measurement is the primary source of this information. It is included in various actions: observation, experiment, exploration, prospecting, verification, analysis, trial, testing, diagnosis, control, attestation, etc. In contemporary technology, measurement has become an essential component, present in all stages, from conception to the final product, therefore some terminological clarifications are required.*

**Keywords:** *measuring, physical education, anthropometry*

### **Introduction**

#### **Results of the measurement process**

Measured data obtained represent the results of the measurement process. The results may take different forms of presentation: figures, symbols, classifications, etc. But, regardless of the form of presentation, the main attributes of measurement results are:

1. Accuracy - is a measurement quality that results in it being close to the true value of the measurement. But what is the true size of the measure?

The most common solution is to replace the true size with the "true conventional size", so it is understood that it is actually a virtual result of a measurement performed by a competent operator under perfectly reproducible conditions, using an appropriate standard.

There is also a "probabilistic" solution, which means that, based on previous statistical knowledge about measuring, the most frequent result is assigned a label of "true size," accepting a plus and a minus as risk factors, between which this "true size" may be.

After measuring (in fact, after a series of measurements), the "true size" will be on a smaller scale and will be closer to the real one. Certainty is the upper limit of probability, which can only be achieved due to the tolerance and sufficiency of the decision-maker (impotence).

A measurement is highly accurate if the measurement errors, both the random and the systematic ones that accompany it, are small. The accuracy of the measurement result is a feature by which the decision maker lays down the deficiency between the measured value and an exemplary reference (fair value). The position of the measurement result (P) is even greater as the difference between the measured value ( $X_m$ ) and the right size ( $X_j$ ) is smaller: The relationship between precision (as a qualitative expression) and difference (in absolute value) between the measured size and the right size ( $X_m - X_j$ ) is subjective (determines uniquely). It should be noted that:

- the average accuracy is different from the precision of the average;
- inversion accuracy is not the error;

Measurement accuracy can be found in current expressions, such as weighing precision or machining accuracy, but these expressions only define measurement accuracy, not tolerance and sufficient decision. In relation to the so-called tolerance and sufficiency of the decision-maker, it must be said that a certain degree of precision cannot be achieved either because the decision-maker does not have access to the appropriate information or does not want to measure with great precision.

2. Repeatability - is the quality of repeated measurements of the same measure to obtain close results between them. So, it is an attribute of a range of measurements, characterized by how the results are grouped around a central value, of their average. Grouping refers to the degree of closeness between them, and not to the degree of approximation to the measured size. Repeatability refers to measurements made with the same method, under quasi-identical conditions, on the same measurement. To characterize the degree of approximation of results obtained by different methods, at different time intervals, on different measures, the term "reproducibility" is used. In metrology, the repeatability (R) is expressed by a quantitative parameter, usually the inverse of the standard deviation (S). The repeatability is even greater as the standard deviation is higher (sometimes, instead of the standard deviation, the amplitude, the average of the deviations, the mean deviation) are preferred. A good repeatability of a measurement means low random errors, small deviations in repeating the measurement, under virtually unchanged conditions.

3. The correctness - is the quality of repeated measurements of the same parameter or object to deliver results with a value close to the true value of the measure. From general metrology, it is known that precision includes both repeatability and fairness, which are considered to be two distinct, complementary components. They are independent features, which can be grouped by product type (according to the serial model of independent finality). So, correctness is a synthetic attribute, dependent on precision and repeatability. Correctness is also characteristic of a series of measurements with high repeatability (close grouping of results) and with high precision (small difference between the mean of these values and the right size).

#### Errors in the measurement process

In most situations, the value obtained by measurement is not identical to the exact or actual value, the difference between these two values representing the measurement error.

"Sources" of measurement errors.

##### a. Main Sources:

- the subject of the measurement;
- the measuring apparatus;
- the interaction between the object and the device;
- external influences.

1. Errors due to the object under measurement or "model errors" - are a consequence of idealizing or simplifying the object under measurement. He is associated with a model that does not fully correspond to reality, often neglecting his complex character. The object to be measured may cause measurement errors and by some of its own characteristic dimensions, other than the measurement, which influence the instrument to be measured. This type of error also bears the name of "non-informative sizes or non-informative parameters" for that measurement process.

2. Errors due to the measuring instrument or "instrumental errors" - depending on the design and construction of the measuring instrument. Under normal conditions of use of the instrumentation, the limitations of instrumental errors are known from the prospectus in the technical documentation of each apparatus.

3. Errors due to object-to-device interaction or "interaction errors" - are caused by the disturbances exerted by the measuring apparatus on the object being measured. Under these conditions, the state of the object is altered, and the measurement takes another value than the one preceding the object-device interaction.

4. Errors due to external influences or "errors of influence" - come from the external factors acting on the object to be measured and on the measuring instrument. These factors include: environmental conditions of measurement (temperature, humidity, and air pressure), electromagnetic fields, radiation, terrestrial gravity, mechanical actions, shocks, vibrations, sounds.

b. Other "sources":

1. Operator errors or "subjective errors" - come from the way the human operator appreciates certain effects (such as coincidences, intensities, shades), or various visible physical sizes. The evaluation of such errors is made by comparing the performance of the operator with the performance of an ideal human operator. These errors are especially important for subjective measurement methods.

2. Method errors - are specific to particular measurement methods and occur especially when using indirect measurement methods.

Errors of the measurement results

- random errors (occasional) are errors that vary unpredictably when repeating an identical measurement; these errors have equal properties, may be positive or negative; they come from a variety of causes and may have effects in different ways, but they are subjected to the statistical test, assuming that they are based on Gauss's normal curve;

- systematic errors are errors that do not vary by repeating a measurement under identical conditions, or that vary in a determinable way when conditions change; as a rule, are caused by a malfunction of the measuring instrument;

- gross errors are errors that exceed the probable errors in repeating measurements, and are not justified on the basis of the objective conditions of the measurement process; they result from inadequate performance of a measurement, due to the inattention of the operator, of reading errors or computer errors; Aberrant value is the result of such an error, which must, as a rule, be identified and excluded, as it would compromise the whole process of interpretation

and decision-making;- the errors due to the decision maker, who is also involved in this stage of the knowledge process. Even if the operator and the decision-maker are one and the same person, this is not an operator error, but the "true size of the measure".

C. Florea (1983), quoted by M. Epuran (2005), performs a schematic representation of measurement errors (Figure 1):

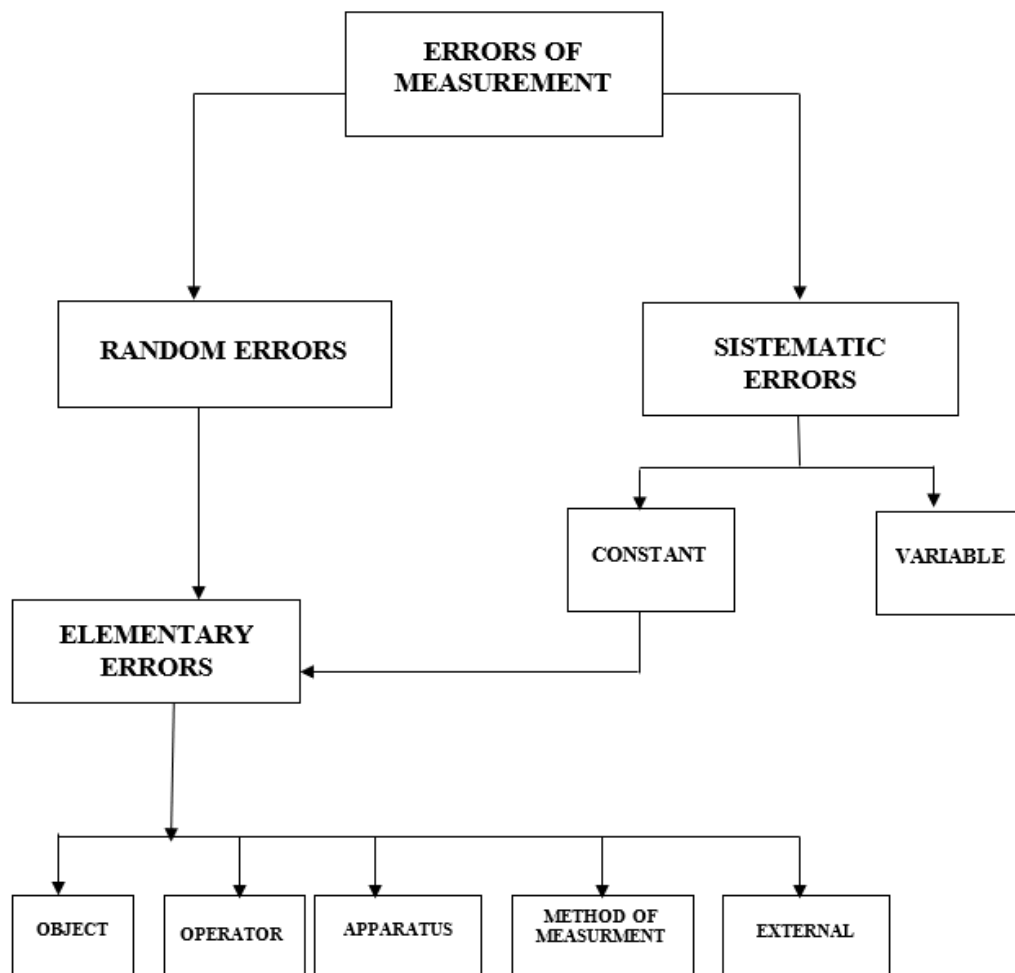


Figure 1. Measurement errors (C. Florea, 1983, quoted by M. Epuran, 2005)

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## Dance sport as integrated part of the Romanian educational system

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### Abstract

*Problem statement.* Dance Sport started in Romania with the first competition in 1984, organized by Viorel Năstase, one of the founders of the Romanian Dance Sport Federation (R.D.S.F.) founded in 1991. However, since its establishment to the present time, no state structure, or more specifically, a structure belonging to the Ministry of National Education, was set up to organize the debut of young people in their career as performing sport dancers. They often get into a dance hall by pure chance. If dance sport was available to everyone, future champions would probably be highlighted, and the selection would be more appropriate. Moreover, young sport dancers have the chance to go through the stages of learning only at private dance clubs, which further reduces the number of talented dancers who make a career in dance sport because they cannot afford the costs.

*The aim of the research.* A structure within the Ministry of National Education that can represent the stage of initiation in a sport dancer career is primary, secondary, and upper secondary education. Within this structure, students can be involved in dance sport at Physical Education classes. In addition to general physical training and the development of basic motor skills, classes can be organized for students to learn about dance sport. Those interested may be further directed to integrated sports education or to state-owned schools specializing in extracurricular activities where they may reach the next learning stage.

*Conclusions.* I believe that introducing dance sport in the school curriculum for the Physical Education classes is a first step for young talents on their way to becoming performance dancers and results in the discovery of more talents in this field but also brings many general benefits : physical and mental health, socializing of the individual, motoric, psychological and socio-cultural education, aesthetic education, physical development and development of the effort capacity, competition and communication with others and with oneself, fulfillment of the performance aspirations. This is how dance sport is one of the most educative activities in which students learn to understand music, to know their body and express their feelings through movement.

**Keywords:** dance sport, education, performance, competition, movement

### Dancesport and its benefits for their practitioners

Dance sport is one of the sports bringing joy to the young. Situated at the interface between art and sport, dance sport allows the development of physical, creative, cognitive, expressive, emotional abilities and it is also one of the most pleasant ways to practice physical activity and most certainly one of the most efficient manners in which one's morale and quality of life can be improved.

According to Walter Sorell (1994), dance is “the first language of mankind capable to arouse the deepest, most nuanced, and lasting resonances of our vitality. It is the human language before its synthesizing”.

Dance allows direct nonverbal communication with the spectators, as the dancers can transmit feelings, emotions through mimic and harmonious moves.

Năstase (2011) states that “dance is an expression of human existence, a creation of the independent spirit of individuals and their desire for social identity, a way to experience

feelings, adapt and aspire, a way for energy consumption, rehabilitation, therapy, achievement and assessment of oneself and others, to communicate with oneself, others and with the transcendental.”

Dance sport is a sports branch accessible to ages between 4 and 60, it can be practiced as high-performance sport, as fitness sport, for relaxation and mental rehabilitation, socializing and it is also a performance which sends a luxuriant artistic message with esthetical meanings and connotations.

Novere (1967) considers dance to be “...the art of creating combinations of steps, choreographic combinations with grace and precision, with imagination and ease, in direct connection to the melodic line...”

It has been proven that music, implicitly dancing bears a series of beneficial effects. The Mozart Effect has positive effects on the brain. The pleasure triggering agent being not the lyrics but the music, the melody, the sounds, the rhythm. The latter seems to play the most important role and it can also be found in dance. Dance generates a series of tonic emotional states, it induces calm, leading to the reduction of tension and anxiety, allowing an escape from everyday, also increasing resistance to effort, contributing in the same time to the overcoming of obstacles and facilitates interpersonal communication.

However, this activity also has a strong social impact on those practicing it. The partnership in dance sport develops interpersonal relationships and a general state of wellbeing. Dancers trust themselves and children, along with harmonious development and pleasant personality, also have a group where they can learn the specific etiquette of dance sport. Recreation, spending time in an active manner, developing the habit of independently practicing dancing, self-organization are additional contributions of dance sport for children.

Dance also offers a dynamic context for learning through movement, relaxation, creativity, and self-expression, which distinguishes itself from other learning methods. Dance requires the ability to think and act, to focus on the task, to persevere and to learn.

As it is a physical activity, dance sport first implies a combined type of aerobic and anaerobic effort (between 200 and 700 calories may be burned over one hour). There are benefits to the locomotor system, as dancing develops special posture and mobility.

Thus, maintaining and improving the physical and mental state of health, socialization, motor, mental and socio-cultural education of individuals, esthetical education, physical development, the ability to sustain effort, competing and communicating with others and with oneself, accomplishing performance-related aspirations are only some of the benefits of practicing dance sport.

### **A survey of dance sport in Romania**

Dance sport has lately met a spectacular evolution in Romania, from a simple form of expression and rhythm of physical exercise to a sports discipline that tends towards olympism, which has an internal and international competing system that is well organized and placing an accent on perfection in movement.

In terms of historical emergence, the first ballroom dancing competition was organised in Romania in 1984, in Pitești, under the name of Dansul Florilor (Flower's Dance) being organised by Viorel Nastase, one of the founders of the Romanian Dance sport Federation (F.R.D.S). Later, others have also been organised under the same name of “ballroom dancing”

and in 1991 as the F.R.D.S. was founded, the modern term of “dance sport” was adopted. One year after its foundation, on January 1, 1992, F.R.D.S. affiliated with the International Dance Sport Federation (I.D.S.F.), becoming a member with full rights.

The organizing team of F.R.D.S. has constantly been preoccupied with creating a specific world of the Romanian dance sport, which had to gain its place along the other consecrated disciplines of the Romanian sport. Already from the first year after its foundation, the federation organised, together with TVR (Romanian television network) the first international dance sport competition in Romania.

Currently, 211 sport structures representing 33 counties and the municipality of Bucharest and over 5000 legitimate dancers are affiliated to the federation.

From a competitive perspective, dance sport emerged from the need to compete of those on the dance floor and who wanted to be judged according to objective criteria. The dancers’ desire to perfect each move and dance has later led to specific figures performed as upscale as possible, in terms of body and musical movement. Thus, dance sport has precise rules for carrying out choreographic structures, with several dances included in competitions and classification categories.

Just like at an international level, dance sport is well structured at national level, too, as there are common rules and specifications. Thus, dance sport exhibits the following specific components (sections): standard dance: slow waltz, tango, Viennese waltz, foxtrot and quickstep and Latin-American dances: samba, cha-cha, rumba, paso-doble, jive.

Dancers from Romania may take part in the competitions organised by F.R.D.S. in the following performance components (superior dance classes): H (Hobby), E, D, C, B, A, S and age categories: 4-7 years, 8-9 years, 10-11 years, 12-13 years, 14-15 years, 16-18 years, 19-35 years and senior (35+). The accession criteria from one class to another differ just like the number of dances performed. Passing from one class to another is possible only based on the number of points acquired in competitions.

By analysing dance sport in Romania, from an educational perspective, we can observe that there are private dance sport clubs that are affiliated to F.R.D.S. (the Romanian Dance sport Federation) but it is poorly represented in the educational system in our country.

Based on the figure 1 (The evolution of an dance sport student in Romania), we suggest the introduction of elementary concepts of dance sport by means of general physical training, development of basic motor abilities, initiation in dance sport, participation in competitions within schools/between schools starting with the elementary (grades I-IV), secondary (grades V-IX) and upper secondary (grades X-XII/XIII) education. The pupils will establish certain connections by relating to this newly introduced sport.

The education system includes dance sport as a specialised sporting discipline in schools with integrated sport programs (e.g. „Nicolae Rotaru” Sports High School in Constanta) or in public teaching units specialised in extracurricular activities (e.g. Children’s Palace in Sibiu, Children’s Palace in Pitești). At this intermediate level, the development of specific physical training and specific dance sport-related motor abilities is intended. Here, stress will be placed rather on the pupil’s creative abilities and their communication abilities than on technique.

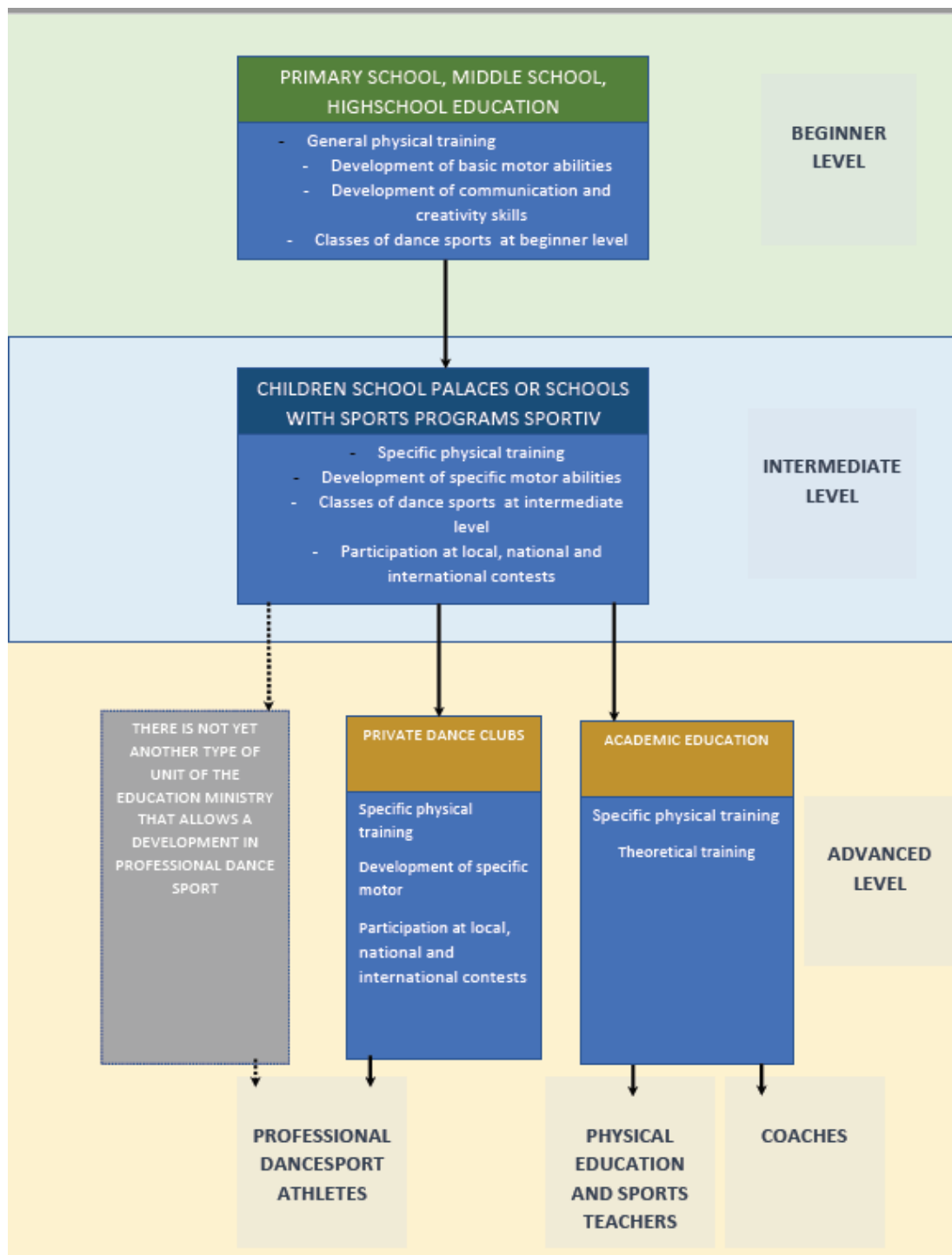


Figure 1. The possibilities of a dance sport athlete in Romania

In the career of professional dancers, after passing through the beginner’s and intermediary levels, there is no public institution in which they can be trained at an advanced level, however this is a permanently growing trend among private associations and clubs in this field. Therefore, the results in competitions are numerous. Romanian sportspeople have managed to make their way to the elite of global dance sport, achieving extraordinary performances, among which 8 world champion titles one European champion title, 8 world and European vice-champion titles and numerous 3rd place titles. At this advanced level,



dancers possess theoretical and physical knowledge in dance sport and participate in national competitions organised by F.R.D.S. and international competitions organised by I.D.S.F. They participate in these competitions as F.R.D.S approved ballroom dancers.

Currently, in university education -dance sport- is represented by Viorel Năstase – the initiator of dance sport in Romania, at the Physical Education and Sport Faculty in Pitești. He is also the one who, in the past, promoted dance sport in various teaching institutions. The graduates of such courses become either physical education and sport teachers or dance sport teachers.

Thus, in the context of public institutions, dance sport is not as well promoted as in private institutions, as there are numerous gaps in the educational process. Namely, if a talented child from the Children’s Palace in Sibiu manages to reach an opportune competitive level, he advances to another class and age category, followed by an enhancement of the performance level. How can this be achieved? If the talented pupil wishes to study further, he might do so at the Physical Education and Sport Faculty in Pitești, which comes with numerous sacrifices (financial and social).

If there is no complete educational system in our country, how can we achieve performance in dance sport?

Most Romanian champions have carried out their training activity in private dance sport clubs. By following the successful trajectory of the national champions Ramon and Rami Zedan we can see that they only performed in private clubs (the “Pas în doi” private club in Bucharest). Two siblings for whom destiny created a common path in life – dance sport. The young couple can set forth 10 national champion titles and 4 vice-champion titles in the categories Standard and Latino. Rami Zedan (2006) said “he discovered something interesting which caught his attention: the magic of dance sport. I was compelled to come to dance classes. I wasn’t as fascinated by this sport as my sister.”

All in all, in the case of the Zedan siblings, we can say that the pleasure to dance was absent and that it only emerged in the process. However, many dancers step into a dance room by chance. If dance sport was open to everyone, probably future champions might emerge, and selection would be more opportune. Moreover, dance sport practiced in private clubs is never free of charge. The Zedan siblings practiced at the Pas în Doi club, but they had to bear the costs of competitions and training themselves (a dress for the Standard category costs over 1500 Euro).

As a conclusion, to create a complete educational system in Romania, except for public clubs, a change should take place in the syllabus of physical education and sport classes in elementary, secondary, and upper secondary education, so that pupils may get in contact with dance sport and learn the basic concepts. They may continue the path to a career in dance sport in the already existing teaching units, such as sports schools or public teaching units specialised in extracurricular activities, where they can carry out intermediate level training. For now, the upper level in preparing ballroom dancers is available only in private clubs affiliated to F.R.D.S, as for the time being there is no state-funded structure in which young talents could be trained to achieve performance.

### **The importance of dance sport for Physical Education and Sport classes of elementary, secondary, and upper secondary education**

The need to implement dance sport in schools is the key to success in the attempt to define and occupy the place it deserves in the current sports hierarchy.

In physical education dance sport is introduced to a very small extent in lessons because there are no specialists now, but where it is introduced as a sports discipline in schools, it is done so with other sports branches with common objectives, but also specific objectives determined by the specificity of dance.

Aducovschi (2007) considers that “in school, by practicing a certain form of dance, the following objectives are aimed: achievement of optimal general physical education, training motor memory, learning and consolidating choreographies, teaching motor expressivity, training emotional factors, self-control, development of rhythm and spatial-temporal orientation.”

This is why, dance can be successfully used in almost all the links of physical education, thus contributing to the improvement of coordinative and conditional abilities of pupils, to the teaching of motor abilities and finally in physical rehabilitation and achievement of good mood.

The study of dance sport in school is important because it helps develop self-consciousness, functional and confident movement, broadening of creativity, increase of competence and confidence and expansion of the understanding of dance as an integral part of our culture and society.

I believe that the implementation of dance sport in teaching units and its development as a sport for the mass is opportune not only because sport maintains health, but also to provide other sports activities to pupils.

This new approach aims at synthesizing a specialised didactic basis in dance sport. This sports branch, which hasn't sufficiently developed within the Romanian educational system, is represented mostly in private sports clubs. Therefore, the biographic resources are insufficient, so that new orientations need to be introduced in terms of the training process, the development and nutrition of sportspeople.

Ciomag (2010) believes that “dance, as a form of education used in the syllabus, is placed at an initial, incipient level, without emphasis on corporal technique but strictly on communication, expression of the emotions and meanings defining it, of building personal motor expressiveness by participating in the process of artistic creation.”

Dance sport as a sports branch is subjected, just like any other discipline, to the pressure exercised by the circulation of information and it is obliged to stay in close connection with the constant updating of the training process and systematization of the used methods and means. Performance and longevity in sports is in close connection to training.

Thus, Năstase (2002) believes that “the development of motor abilities is an integral part of training and general and specific physical training is indispensable for the complete training of sportspeople from a biometric perspective”. We may find that before gaining any motor ability that is specific for a certain sport, the pupil must start to shape and consolidate

his general physical training and after acquiring specific motor abilities pass to a form of training which is specific to dance sport.

Optimizing sport training in children and juniors implies knowledge of their growth and development particularities in different stages. Only based on these can one develop a training plan that is appropriate to age and development level, but also to the needs and desires expressed by the pupils.

Also, dance sport can be advertised through different projects. In 2016, under aegis of F.R.D.S and of the national school inspectorates, an educational project was launched under the name of “Lumea mea în pași de dans” (My world in dance steps), which aims at the development of dance in schools through the discipline of dance sport, by means of a program including initiation activities suggested to pupils under the coordination of their physical education teacher.

The main target of the project is the acknowledgement of the equal status of educational curricular and extracurricular activities with that of formal education, from the perspective of equal contribution brought to the development of the child’s personality and social integration. This project aims at developing fondness towards physical activities, strengthening health, development of positive character features, of the spirit of fair-play in sports competitions.

On the other hand, small steps are made towards development and dance sport will be present at the Olympics. The International Olympic Committee chose three new disciplines for the Youth Olympics that will take place in 2018 in Buenos Aires. One of these is dance sport, through its component Breakdance.

Ciomag (2010) asserts that “in school, dance will play a special role by developing corporal communication abilities, with special highlight on developing creative possibilities, regardless of the technique. Subjects will be advised to reproduce the move suggested and executed by the professor as accurately as possible, from a technical perspective, being of course also encouraged to add a personal interpretation, to express what they feel, imagine and what inspires them or what the accompanying music suggests.

The choreography combinations shown by the professor will train the motor memory and coordination, will aim at the concentration ability, availability, appreciation of guidelines and inner desire for self-perfecting, self-knowledge, awareness of one’s body in movement through the image provided by the example, but also by their own mental image.”

As a conclusion, dance sport is one of the most educational activities. Thus, by dancing, pupils learn to understand music, know their bodies, express their feelings through movement. Education through dance is achieved throughout the performance of the activity. The young dancer becomes disciplined and more aware of his body and dynamic. This awareness helps very much in improving the specific technique. Balance, synchronisation, and motor coordination are qualities that are shaped and perfected through sustained effort and well-established training programs.

Therefore, along with the fact that dance sport classes have a positive influence on the development of pupils into grownups, it also represents a first contact of the pupils with this sports discipline, it teaches them the basic concepts and may represent a start in their career as professional dancers. For these reasons, we support the introduction of dance sport in the

syllabus of the Physical Education and Sport classes in the elementary, secondary, and upper secondary education.

“Dance may take an important place in the physical education activity being one of the main means for developing special abilities of children from a very young age, being the communicating bridge between physical and aesthetic education. The latter is achieved by shaping artistic sensitivity, training kinaesthetic sense, musical sense, educating musical culture, which allows them to penetrate the meaning and content of ideas of a musical piece which they then carry out through motor participation” (Moraru C., 2014).

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## **The role of motor activities in rising student motivation for sport**

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### **Abstract**

*In the present research, we tried to discover the motivations considered by the students as decisive for the active participation in the motor activities proposed during the sports lessons. The study had as a main method of research the opinion questionnaire and the sample of the research included a number of 100 students from the "Lucian Blaga" University of Sibiu. The conclusions of the research showed that the main motivations of the students for practicing in the motor activities were: maintaining an optimal state of health, the need for relaxation or relief of psychological stress, ensuring a physical condition, psychological, emotional and social balance, the attractiveness of the motor activities, from the sphere of socialization, the discovery of new friends, communication, socialization.*

*Gender differences have shown that opinions are shared, male students consider physical and social motivations to be the most important, while female students consider important in the motor activities the psychological and sanogenic effects.*

**Keywords:** *the motivation for sports, socializing, motor activities.*

### **1. Introduction**

During the period of university studies, physical education and sports activities aim to continue training and self-training of future specialists. Therefore, in the physical education and sports lessons, through the practical activities of different sport disciplines, students can take advantage of their talents and skills, as well as provide a framework for enhancing their mobility skills, develop motor skills at a higher level, improving the body's great functions, developing moral values such as respect for self and adversary, fair play, helping in need, perseverance, attention, memory (Tufan, 2015).

In the literature, the notion of sport has a general meaning, representing "all forms of physical exercises and dynamic games of a more or less spontaneous and competitive nature, originating in the traditional games and the founding myths of modern civilization, and its diversification is related to the fact that it carries values that come from contemporary ways of life" (Dragnea & Mate-Teodorescu, 2002).

Motor activities are a component of active life, an "important link to lifestyle, which involves making moves, according to your own choices, a few times a week, a pleasure movement, to consume energy and to produce satisfaction (Grigore, 2007).

Physical education can also improve the cohesion of groups, with a good cohesion of the group is considered important and can lead to better performance of the group. The relationship between cohesion and performance has been studied by many researchers, and most have come to the conclusion that "the connection between performance and cohesion is reciprocal (Sopa & Pomohaci, 2014, b). Also, successful groups are built around strong leaders and the importance of this role is increasing in today's sports in all categories (Sopa & Pomohaci, 2015 a).

A lot of skills are taught by young people through team sports, one of which is competition. Today we meet the competition every day and in every field. As adults we meet the competition when looking for a job or trying to find better jobs, children meet the competition at school for the best grades (Sopa & Pomohaci, 2015 b).

The benefits of practicing motor activity on the body have been highlighted in many specialized works, we want to present some of the formative valences of practicing the motor activities that aim at the sanogenic, attitude and behavioral plan (Uță, 2012):

Table 1. The formative valency of motor activities

Formative valency		
Sanogenic plan	Atitudinal plan	Social plan
<ul style="list-style-type: none"> <li>- stress removal;</li> <li>- restoration;</li> <li>- relaxation;</li> <li>- strain relief;</li> <li>- disease prevention;</li> <li>- increasing work capacity;</li> <li>- good physical condition;</li> <li>- maintaining a pleasant physical appearance for as long as possible</li> </ul>	<ul style="list-style-type: none"> <li>- self-respect;</li> <li>- emotion management;</li> <li>- tolerance for failure and frustration;</li> <li>- conflict management and violence control;</li> <li>- risk management;</li> <li>- positive mental attitude (eliminating the loser complex, better self-knowledge).</li> </ul>	<ul style="list-style-type: none"> <li>- respect for the community;</li> <li>- fair play and team spirit;</li> <li>- the ability to integrate through sports into different groups;</li> <li>- the ability to know and recognize the stable values of society;</li> <li>- developing the communication capacity (knowing that physical activities are a stimulant for communication);</li> <li>- the ability to work in a team;</li> <li>- cooperation, collaboration skills, etc.</li> </ul>

One of the main motivations for sport, analyzed and discovered by specialists, is the formation of a healthy lifestyle by practicing physical exercise. In the opinion of specialists, healthy lifestyles are an active process that takes place during ontogenesis, especially during maturation, as well as the genetic heritage and norms and values of the environment in which individuals live.

Sports activities also develop communication, intergroup relationships, and group cohesion. We can demonstrate that motor activities can develop group cohesion, develop positive intergroup relationships, discover the group leader and most importantly integrate and reintegrate children into the social group. The cohesion of the school group is very important in the evolution of performance as a group, so in collectives where we have positive relationships like sympathies, friendships, and cooperation, the efficiency of work is high (Sopa & Pomohaci, 2014).

Other important contributions to motor activities are their socializing role, demonstrated by many scholars in different fields, most of whom state that these activities represent the perfect framework for the social development of young people (Sopa & Pomohaci, 2014 e).

Table 2 – Factors that influence the formation of a healthy lifestyle (after Grigore, V., 2007):

Factors that influence the formation of a healthy lifestyle		
Factors relating to the individual himself	Group belonging to other people	Institutions, organizations, associations of other structures
Regulatory factors	Cultural level	Socio-political factors

Socialization through sport is a process of social integration through communication, understanding, and cooperation, with an interactive role for conflict resolution. Therefore, it is structured on cognitive, emotional and motivational constructions, as well as the performances, behaviors, and performances of sports groups (Sopa & Pomohaci 2014 c). Also, the important situational factors for group cohesion are living close to each other, sharing the same hobbies and activities, the same uniforms or clothing, group rituals, etc. (Sopa & Szabo, 2014).

Seen as a social institution, the sport has its own basis in society, it has a regulation, specific laws, sanctioning ways, links, friendship (both social and cultural) and communication systems, principles and ideologies (Sopa & Pomohaci, 2014).

Besides family, the first and most important socializing group, other groups contribute to the socialization of individuals: school colleagues, friends and later professional groups. One of the ways in which socialization within the group of friends or colleagues is achieved is the practice of sport. Individuals learn through sport to work together, to assume certain roles within the group and to define themselves within the group (Sopa, 2014).

Socializing through sport is a complex process through which individuals learn skills, attitudes, values, and modes of behavior that enable them to function in a particular culture. These modes of behavior are taught in institutions such as school or family (Sopa & Pomohaci, 2014 d).

## 2. The aim of the research

Through this research, we intend to know the opinions of the students in the higher education of the "Lucian Blaga" University of Sibiu regarding the motivational factors that lead the students to participate in the motor activities proposed by the university. The objective of the research among the objectives of the research we can list: identifying the opinions of the students about the motivational factors that lead them to participate in the motor activities.

## 3. The research hypothesis

The knowledge of the students' motivation regarding the active participation in the proposed motor activities can give us, as leaders of the didactic act, indicative data for the formation of the practical-methodical and didactical approaches within the student sports disciplines.

#### 4. The research methods

In the research, we used the following research methods: the method of investigation and data collection (theoretical documentation), statistical methods of processing and interpretation of the obtained data, the survey method - the questionnaire.

#### 5. Results

The sample of the questionnaire included 100 students from different specializations from the we've used them to have a clearer picture of the group of subjects, both in age and gender. Subsequently, gender analysis will show whether there are differences between female and male gender views. Age - most of the interviewed students are aged between 19 and 20 years (67.4%), "Lucian Blaga" University of Sibiu. Demographics - according to Fig. 1 and Table no. 3.

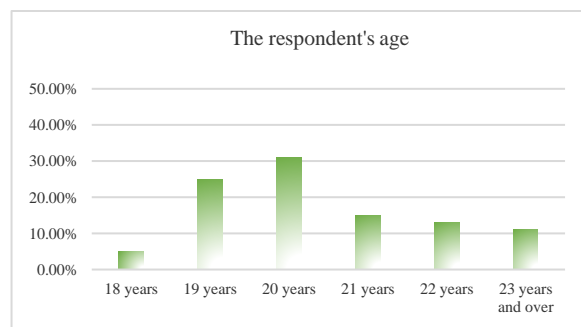


Figure 1. Graphic representation of the questionnaire respondents' age

Table 3. Age of respondents statistical calculation

Age of respondents	Cases	%
		N = 100
18 years	5	5%
19 years	25	25%
20 years	31	31%
21 years	15	15%
22 years	13	13%
23 years and over	11	11%
<b>Total</b>	<b>100</b>	<b>100%</b>
The average	20.91	
The mediana	20	
Standard deviation	2.92	
Skewness	2.72	
Kurtosis	8.20	



The gender distribution of respondents to the questionnaire was as follows:

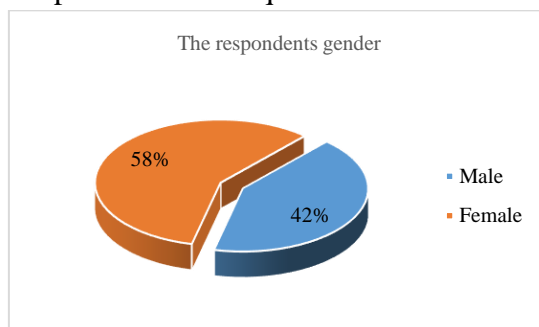


Figure 2. Gender distribution of the questionnaire respondents

Appreciate how the following motivational factors influence you in participating in physical education curricula. Evaluate each motivational factor.

Table 04. Students' answers to the questionnaire

Motivational factors, students' opinions	5	4	3	2	1
1. Maintaining the optimum body condition	60	23	10	2	5
2. Improving the functions and body systems	52	15	18	5	10
3. Keeping high indexes of some certain activities ability	58	21	11	4	6
4. The knowledge of acts and motor activities	55	25	10	5	5
5. Developing social values (communication, collaboration, socializing, relationships)	44	20	10	16	10
6. The development of cognitive capacities (thinking speed, memory, attention, boldness, ambition)	50	14	16	10	10
7. Developing creativity (imagination, rapid adaptation to new systems, initiative)	53	8	14	18	7
8. Promoting moral values (fair play, mutual aid, honesty, modesty, dignity)	62	20	11	4	3
9. Networking with peers involved in activities	58	12	10	11	9
10. Staying healthy	30	15	5	10	40
11. Developing group cohesion	52	28	4	6	10
12. Reducing the level of violence	33	10	12	5	40
13. Forming a positive self-image	55	15	12	8	10
14. Training constant habit of practicing motor activities during your leisure time	61	18	5	14	2

Table 05. Calculation of statistical indices in the items of the questionnaire

Questionnaire item	Arithmetic mean	Median	Standard deviation	Skewness	Kurtosis	T-test on gender
Item 1	4.31	5	1.07	-1.76	2.64	2.332
Item 2	3.94	5	1.35	-1.03	-0.17	1.150
Item 3	4.21	5	1.17	-1.51	1.43	2.120
Item 4	4.20	5	1.13	-1.48	1.44	1.740
Item 5	3.72	4	1.42	-0.69	-0.97	-0.322

Item 6	3.84	4.5	1.40	-0.84	-0.67	2.136
Item 7	3.82	5	1.42	-0.67	-1.10	0.220
Item 8	4.34	5	1.03	-1.64	2.12	1.180
Item 9	3.99	5	1.40	-1.05	-0.38	2.454
Item 10	2.85	2.5	1.75	0.12	-1.78	2.224
Item 11	4.06	5	1.31	-1.38	0.67	1.202
Item 12	2.91	3	1.76	0.06	-1.77	-0.200
Item 13	3.97	5	1.38	-1.07	-0.23	-0.420
Item 14	4.22	5	1.17	-1.29	0.30	2.450

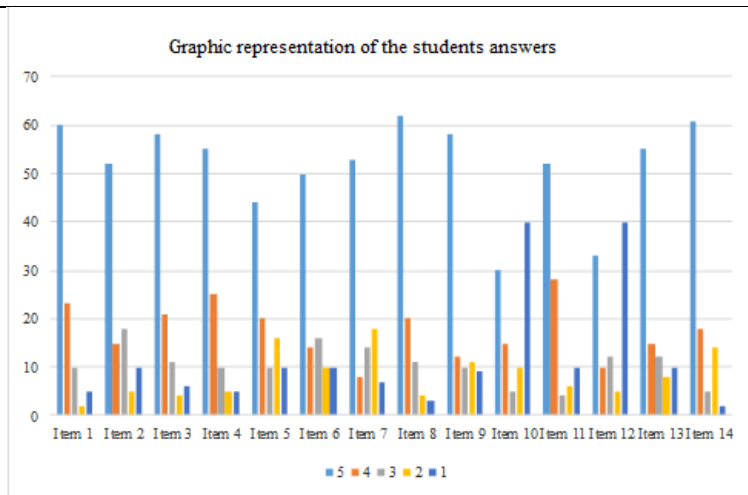


Figure 3. Graphic representation of the students answers

## 6. Conclusions

Analyzing Figure 1 we can see that many students are aged between 19 and 20 years (56% of total). And regarding gender composition we can see that most of the students (58% of total) are female and 42% of respondents were male.

Asked to answer which of the following values of effects they consider essential for developing a positive attitude for practicing motor activities, the students answered:

- at the answer variant "maintaining the optimum body condition", students majority response was 5 (60% of total respondents), the average mean was 4.41 and the differences by gender, calculated with the significance t-test (0.522), being insignificant.

- in the case, of the answer "improving the functions and body systems," the most common response was 5 (49% of total) average 4.18 and a significant gender difference (2.050).

- at the item "keeping high indexes of some certain activities ability", the most frequent response was 5 (45% of total), the average was 4.01, a significant difference in terms of gender (0.340).

- at the answer variant "the knowledge of acts and motor activities" the students replied in 33% with alternative 5, averaging 3.53 and significant gender difference (2.542).

- at the item 5 "developing social values", 62% of students responded with 5, the average grade is 4.38 and gender difference is significant (2.392).

- at the item 6 "the development of the cognitive capacities", 41% of students chose the 5 grade, the average grade was 3.55, gender difference was not significant (0.102).

- regarding item 7 "developing creativity", about 45% of students rated 5, the average grade was 3.74, and gender difference was significant (2.380).
- at the item 8 concerning "promoting moral values", about 55% of students chose the 5 grade, the average grade was 4.12, and gender difference was significant (3.060).
- at the item 9 "networking with peers involved in activities", 58% of respondents chose the grade 5, the average grade was 4.24, and gender difference was significant (2.600).
- regarding the item 10, "staying healthy", most students (57% of the total) rated 5, the average grade was 4.17, and gender difference was insignificant (1.424).
- at the item 11 "developing group cohesion", 50% of students have chosen the 5 grade, the average grade was 3.95, and gender difference was significant (1.232).
- in the case of the item 12 "reducing the level of violence", 40% of students chose the 5 grade, the average grade was 3.96, gender difference was not significant (-0.843).
- at the item 13 "forming a positive self-image", 38% of students have ticked note 5, the average grade was 3.71, gender difference was not significant (1.453).
- regarding item 14 "training constant habit of practicing motor activities during your leisure time", 45% of respondents chose the 5 grade, the average grade was 3.86, gender difference was significant (2.380).
- at the item 15 "positively influencing psychological characteristics", 48% of the total number of students have chosen the 5 grade, the average grade was 4.12, gender difference was not significant (-0.876).

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## **Brief history of law. Main elements of law in sport**

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### **Abstract**

*Law - is a set of mandatory rules of conduct that enshrine certain rights, freedoms and obligations of people in their mutual relations, the observance of which is ensured, if necessary, by the public force.*

*Any human community felt the need for an organization, a discipline, thus forming certain rules, norms, customs. Respecting them was necessary for the community and was ensured at first by the head of the family, then, in the clan, in the tribe, by the chief of the clan, of the tribe, directly or together with the advice of the elders, in order to create a special body called to apply and ensure compliance with these rules.*

**Keywords:** *history of law; main element of law.*

### **1. Introduction**

This body was the public power and was at first called citadel (civitas polis), then republic or empire and later acquired the name of state.

The evolution of human society confirms the saying "ubi societas, ibi ius" (where there is society, there is also law).

Man is a political being - "zoon polikon" - said Aristotle. He lives in a community in which, depending on certain complex situations, different rules of conduct are formed, which at the beginning are simpler, but which since ancient times have sometimes manifested themselves in true legislative monuments (eg: the Law of the 12 backgammon to the Romans, ...), so that later, in modern society and especially in the contemporary one, the legislation takes a very wide extension, required by social life, by the transformations that are taking place, by the needs of the development of social life.

The emergence and development of law is produced depending on the historical era, the economic, social, political, cultural, motivational conditions of each country. In our country, a particularly important aspect in the process of creating the rule of law was the Revolution of 1989, after which the CONSTITUTION was drawn up - the fundamental law of the state, intended to outline the fundamental features of the new legal order.

The Constitution ensures some fundamental values in our society, such as:

- Justice,
- Justice,
- Freedom and human dignity,
- Legal security of the person,
- Etc.

The study of law, the need to research the legal phenomenon, the legal norms in society is very important, both for ensuring the development of the most appropriate laws, and for their rigorous application.

Each of us is involved in countless social relationships with a legal character, which requires the knowledge and correct application of legal norms.

#### Main elements of law

We know that legal norms are meant to shape human and legal behavior. On the other hand, legal norms are realized in life through legal relations.

The fundamental premises for the emergence of the legal relationship are:

- The existence of the legal norm
- Legal subjects
- Legal facts

We can say that the legal relationship is a social relationship regulated by the legal norm.

#### The defining features of the legal relationship

1. the legal relationship is a social relationship - it is established between people, and in some situations between people and goods.
2. the legal relationship is a relationship of will. The volitional character of the legal relationship is given, on the one hand, by the will of the state, through legal norms, as well as the will of the subjects participating in the legal relationship.
3. another feature of the legal relationship is historicity, marked by the history of society, both in terms of the legal subjects, the rights and obligations it includes, as well as in terms of the facts that are given legal significance.

The legal relationship - is a social, concrete - historical, volitional relationship, regulated by the legal norm in which the participants manifest themselves as the holders of rights and obligations through the exercise of which the purpose of the legal norm is achieved.

#### The elements of the legal relationship

In the structure of the legal relationship, we distinguish three fundamental elements without which it cannot exist:

1. the parties of the legal relationship
2. the content of the legal report
3. the object of the legal relationship

#### The parties (subjects) of the legal relationship

The subjects of the legal relationship are people viewed either individually as natural persons or collectively as legal persons.

The parties to the legal relationship are always two, and the subjects may be more than two persons. Ex.: the sale-purchase contract where the parties to the legal relationship are the seller (or they can be the sellers) and the buyer (or they can be the buyers.) In order to be able to participate in a legal relationship, natural and legal persons must have the legal capacity which is the aptitude general and abstract of the person to have rights and obligations within the legal relationship.

The legal capacity is:

- a) general, when it does not target a specific field

b) special, when it refers to a specific field, branch, institution. (Ex.: capacity of state bodies, legal capacity of civil servants, etc.)

c) unique - in civil law, two aspects are distinguished:

- Legal capacity for use – the general ability to acquire rights and obligations.

- The legal capacity to exercise – the ability to personally exercise one's rights and assume obligations by performing legal acts. The full exercise capacity starts from the date the person becomes of age. The minor, who has turned 14, has limited exercise capacity.

They have no exercise capacity

- The minor who has not reached the age of 14

- The person placed under the ban

The collective subjects of law are the various organizations (commercial companies, ministries, courts, parliament) including the state.

In civil law, the collective subject of law is defined as a legal person.

### Content of the Legal Report

The rights and obligations of the subjects between whom a social relationship takes place form the content of the legal relationship.

We must differentiate between objective law, as a set of rules, and subjective law, as a right related to a person, as the possibility to act on the basis of objective law, which can be defended by appealing to justice.

In the framework of the legal relationship, the subjective right is a possibility conferred by the legal norm to the holder of the right to claim the passive subject to do or not to do something, the realization of this possibility is achieved through the force of state coercion, if the holder of the right resorts, in case of need.

### Classifications of subjective rights:

1. According to the criterion of their origin:

- Fundamental rights – derive from the membership of each individual in human society (the right to life, freedom, etc.)
- Rights arising from the insertion of the individual in social life (the right to a name, to a residence, etc.)
- Rights deriving from the will of the individual (the right to conclude contracts...)

2. According to their degree of opposition

- absolute rights – Ex.: the right to life
- relative rights - Ex.: the buyer's right to receive the good is opposable to the seller - the person to whom he paid the price of the good -.

3. According to their content:

- patrimonial rights - of an economic nature.
- non-patrimonial rights - without economic character, so they cannot be expressed in money.

They are divided into:

- real rights – those patrimonial rights in which the holder can exercise prerogatives over an asset without the competition of someone else.
- claim rights – those patrimonial rights in which the creditor can claim the debtor to give, do or not do something.

- rights regarding the existence and integrity of the person
- rights regarding the identity of the person
- rights arising from intellectual creation.

As a correlative element of the legal relationship, the legal obligation is a duty of the passive subject of a legal relationship, to give, do, or not do something, the conduct that can be imposed by the coercive force of the state.

Rights and obligations within the legal relationship are correlative.

Thus, we can say that: the legal status of the person is the set of rights and obligations that the citizen has according to the laws in force.

#### *Object of the Legal Report*

The object of the legal relationship - it is formed by the conduct to which its content refers, conduct that can consist of an active attitude (to give, to do) or a passive attitude (to not do).

#### *Legal facts*

Legal facts - are those circumstances that, according to legal norms, lead to the appearance, modification or termination of legal relationships and thereby cause certain legal consequences (Ex.: conclusion of a marriage, birth, etc.).

#### *Legal facts are divided into:*

- 1) events – are legal facts that happen independently of people's will (Ex.: floods)
- 2) human actions - are manifestations of the will of people that create, modify or extinguish legal relationships.

#### *They can be:*

- legal – when they comply with legal norms
- illegal – when they violate legal norms (Ex.: crimes, etc.)

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## **The importance of knowledge of the law in sport**

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### **Abstract**

*The action of the legal norm in space - from a spatial point of view, the legal norm acts on the territory of a state, which determines the internal or national aspect and the external aspect of the application of the legal norm.*

*The territory - is defined by the criminal legal norm as the soil, the subsoil, the inland waters, the territorial sea, the rivers that establish the border, the air column contained between these limits, the surface of Romanian ships and aircraft (which, although they are not part of the territory, on them apply the national norm).*

**Keywords:** *history of law; main element of law.*

### **1. Introduction**

#### **The action of the legal norm**

The action of the legal norm can be viewed under three aspects:

A) Temporal when laws follow one another over time.

B) Spatial when the laws coexist in time.

C) Personal when the laws are intended for the conduct of legal subjects, natural or legal persons

The action of the legal norm in time - does not define its duration by distinguishing the following moments:

◆ Entry into force of the legal norm

◆ Duration of the legal effects procedure

◆ Cessation of the procedure of legal effects, respectively the coming into force of the legal rule.

The action of the legal norm in space - from a spatial point of view, the legal norm acts on the territory of a state, which determines the internal or national aspect and the external aspect of the application of the legal norm.

The territory - is defined by the criminal legal norm as the soil, the subsoil, the inland waters, the territorial sea, the rivers that establish the border, the air column contained between these limits, the surface of Romanian ships and aircraft (which, although they are not part of the territory, on them apply the national norm).

The action of legal norms on legal subjects - here we distinguish the following situations:

◆ The right of each state to apply to persons who are in the respective territory, except for the personnel of diplomatic missions who have privileges and immunity.

◆ Diplomatic immunity consists in exempting the staff of the diplomatic corps and assimilated persons from the jurisprudence of the state of residence and refers to the personal inviolability of the buildings of the diplomatic missions and their assets.

◆ The legal regime of foreigners is regulated in three forms:

The national regime - consists in the recognition for foreigners of the same rights enjoyed by its own citizens.

The special regime - consists in approaching foreigners on the basis of reciprocity (treaties, agreements) for some categories and for certain fields of activity, the same rights as own citizens.

Most-favoured-nation clause - is a regime established by bilateral agreements under which a state grants foreigners a treatment as advantageous as that offered to the citizens of a state, also considered favored. Areas where this regime applies:

- Exports
- Imports
- Transit
- Duty

#### Classification of legal norms

Depending on the criterion considered, there are different classifications of legal norms:

a. According to the object they regulate - that is, the social relations to which the legal norms refer - the branches of law and legal institutions are established and distinguished. Thus we have a criterion for the classification of legal norms, such as constitutional, civil, criminal, administrative, commercial, etc.

b. According to the legal force possessed by the legal norms, we have:

- Legal norms
- Norms from the decrees
- Norms from Government decisions

c. According to the scope and degree of generality, we have:

- General rules
- Special rules
- Exception rules.

d. According to the way the rules are drafted, we distinguish:

- Complete legal rules
- Incomplete legal norms

They are supplemented with reference to other norms.

e. According to the character of the conduct, the nature of the conduct they prescribe, the legal norms are divided into:

- Onerative or imperative - are those that expressly prescribe the obligation to perform an action. (e.g.: the Family Code stipulates that "spouses are obliged to bear during the marriage the name they declared at the time of marriage.")

- Prohibited or categorical - are those that prohibit the performance of an action, a deed (eg: the Family Code states that: "marriage between relatives in the direct line, as well as in the collateral line, up to the fourth degree is prohibited.")
- Permissive or devices - are those that, without categorically obliging or forbidding an action, a conduct, provide the possibility to choose a conduct by oneself, acting according to one's own judgment. Ex.: the parents' right of appeal in the process is a permissive norm, because it leaves it up to the parents to decide whether or not to use this appeal

Depending on the rule of conduct, permissive norms are divided into:

- ◆ Substitute norms - this is what establishes the regulation to be applied. Ex. - in case of dissolution of the marriage, if the spouses do not agree on the name to bear, then the law stipulates that each will bear the name they had before the marriage.
- ◆ Norms of empowerment or competence - are those norms by which certain rights and obligations or competences of the legal subjects are formulated.
- ◆ Stimulation norms – establish the awarding of decorations, prizes.
- ◆ Norms of recommendation – are non-binding provisions addressed to autonomous social organizations by which they are urged to follow a certain conduct.

The definition and features of the legal norm

Legal norm - is a rule of conduct, general and impersonal, instituted by the public power or recognized by it, whose mandatory compliance is ensured, if necessary, by the coercive force of the state.

The purpose of the legal norm is to ensure social coexistence, and by means of them interpersonal relations are ordered and regulated in forms specific to the law.

Considering the specificity of the legal norm, it presents the following features:

1. the legal norm is a rule of conduct with character:

- ♣ general
- ♣ abstract
- ♣ impersonal
- ♣ typical
- ♣ of repeated applicability to an unlimited number of cases.

1. the legal norm is binding - it is binding for all legal subjects regardless of the field in which it intervenes (public or private) by the legal force of the act in which it is contained (law, decree, Government decision, etc.). In case of non-compliance with the norm, the coercive force of the state is called upon.

2. the legal norm has a volitional character, because the legislator does not invent laws, but formulates them in accordance with the social need or order.

3. the legal norm determines certain legal effects, when the subjects of law enter into a legal relationship because through their will, rights and obligations are born, modified and achieved.

4. The violation of the legal norm attracts the responsibility of the guilty party, which can be in several forms, depending on the nature of the violated norm (civil, criminal, etc.). By incurring liability, the aim is to repair the damage caused or remove the damage caused by a person by not complying with the conduct prescribed in the legal norm. The coercion sometimes targets the property and income of the person guilty of violating the legal norm.

The structure of the legal norm

The structure of the legal norm has two aspects:

- A) the internal or logical-legal structure of the norm;
- B) the external or technical-legal structure of the rule.

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## **Particularities of communication in physical education and sport**

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### **Abstract**

*Communication is a process, as a rule, intended to transfer information and meanings between individuals, groups, organizational levels or sub-components and organizations as a whole.*

*Keywords: the communication process, the lesson of physical education and sports, the role of sports in the development of communication.*

### **1.Introduction**

The difficulties in formulating a definition of communication are also due to the age of the term, which has connotations and features that make it difficult to explain its content. "In the most general sense, we speak of communication every time a system, respectively a source, influences another system, in this case a recipient, by means of alternative signals that can be transmitted through the channel that connects them." (Charles E. Osgood). On a professional level, communication is an indispensable component of career success, in this context, the act of communication becomes - more than an element inseparable from our existence - a tool for promoting one's own qualities, abilities and knowledge.

The explanatory dictionary of the Romanian language - DEX (Bucharest, 1996) - records, in article (a) communicates, the following meanings: "to make known, to give news, to inform, to notify, to say", establishing, therefore, a process and a cognitive relationship.

The Explanatory Dictionary of the Romanian Language - DEX (Bucharest, 1996) - records, in the article conversation, the following meanings: s. conversation, dialogue, discussion, (libr.) colloquium, (pop. and fam.) advice, talk, (Ban. ) turvin, (inv.) voroava, (inv., in Transilv.) beseada, (Turkish inv.) musaferea, (fam.) parola, șueta.

From a sociological point of view, (mass) communication is seen as "a set of methods - transmission networks, individual and autonomous equipment - which allows a wide range of messages to be made available to a fairly wide audience" (Dictionary of sociology, Larousse , Bucharest, 1996).

A complex communication model will include the following elements, which have different roles and positions in the communication process:

- the transmitter and the receiver - are the main components of any communication;
- the message and the means of transmission - are essential tools of communication;
- encoding, decoding, response and reverse reaction - are primary functions of communication;
- jamming - noise in the system.

"Communication is a process, as a rule, of intentional transfer of information and meanings between individuals, groups, organizational levels or sub-components and organizations as a whole". Șerban Iosifescu

Communication is a highly complex process. This process with sensitive links is carried out in two significant steps:

- the first stage represents the transfer of a thought, idea or order by the sender to the receiver. This implies: the expression of the idea to be transmitted; its coding in the form of a symbol, capable of expressing a message; transmission of the coded message from the sender to the receiver through the chosen channel (visual, auditory, tactile, electronic).

- the second stage consists in the receiver's transformation of the received message.

This involves decoding the message, i.e. deciphering the transmitted symbol and interpreting it, i.e. explaining its meaning. Communication is successful when the received message is understood exactly as it was conceived by the sender. It is often found that the meaning of a message has been distorted for physiological or psychological reasons. The process ends with the feedback, through which the sender checks whether the message was understood correctly or was filtered.

The relationship between personality traits and the act of communication is located at the intersection of two horizons: the psychology of the person and the communication sciences. The psychology of the person presents synthetically the structures of the personality and the levels of manifestation (Ego, Self, Superego), but also the main components involved in communication at the personality level: affectivity, motivation, attitude, behavior.

The development of communication skills is achieved by analyzing a program of suggestions and practical rules present in each of the components of interpersonal acts: conversing, arguing, seducing, suggesting, manipulating, keeping silent, listening, writing.

To converse: rules of conversation in logical language and affective language; conversation styles, effective forms and aberrant forms, interpersonal perception, attribution.

To argue: the threshold of building a theory of argumentation, the conditions and methods of making argumentation more efficient and a typology of sophisms, the description of an explanatory model of the persuasion process.

The art of conversation is not genetically programmed – you are not born with it. It's a process you learn from family, society, books, and it takes a lot of practice/exercise time.

Any conversational act is determined by the presence of at least two protagonists, who, alternatively, play the role of speaker and receiver. The speaker, who plans his speech at a cognitive level, must signal this planning process to the receiver, to indicate that he still has something to say or that he is willing to yield to him, thus marking the possibility of an intervention by the partner. The role of the receiver, however, consists in listening, in silence, to the speech of the speaker and signaling him, frequently and regularly, that he listens to him, that he understands, that he agrees with what he says, thus satisfying the purpose of "controlling the speaker", without interrupting the flow of the dialogue. In other words, for communicative exchange to exist, it is not enough for two or more inhabitants to speak alternately, but for them to speak to each other, that is, to be both "engaged" in the communicative exchange and to produce "signs" of this mutual commitment, resorting to various "interlocutive validation procedures". The sender must signal the fact that he is speaking to someone by the orientation of the body, the direction of the gaze or the "production" of some addressing formulas. They must also keep the interlocutor's attention awake through various attention-grabbing cues, such as aren't you, you know, I'll tell you, I

won't tell you, etc. and, possibly, to eliminate difficulties in listening to the message or comprehension problems by increasing the vocal intensity or by rephrasing.

And the receiver must emit certain signals that confirm to the speaker that it is well "activated" in the communication circuit. These pragmatic marks, also called "listening signals" ("régulateurs") have various realizations: non-verbal (looks and nods, short smiles, small changes of the place where they are, etc.), vocal (for example, *hî* or *hmm*) or verbal (yes, agree, etc.), all these achievements being resumed, repeated. The production, on a regular basis, of these types of marks is indispensable for the good functioning of the communicative exchange. The phrase "interactional synchronization" refers to "the set of mechanisms of "mutual influence" that the interactants exercise, mechanisms of accommodation that intervene at all levels of the functioning of the communicative interaction", the phenomenon of interactional synchronization covering both the functioning of the exchange of conversational lines, the choice of topics, of the language register, of the vocabulary used, as well as the "bodily" behavior of the various conversational partners (in the communicative interaction, the participants "seem to dance a perfectly orchestrated ballet", instinctively adapting their position, gestures and mime to those of the conversation partner).

In the conversation, it is obvious that the protagonists of the communication speak in turn, the reason why they communicate in turn being represented "by the functional limits of our brain: we cannot speak and listen at the same time". Even if the universal rule of conversation is "one person at a time", there are also times when "people are talking at the same time and not listening to each other", some cases of "overlapping dialogue" occurring because "the listener tries to interrupt to take over the role of the speaker".

When the speaker in the course wants to end his speech, he sends signals to the receiver that he gives up the floor. Some of these signals are transmitted before the end of the speaker's ongoing intervention, "giving the listener the possibility of a 'smooth transition', in which the starting moment coincides with the moment when the partner finishes what he had to say". These signals are both verbal and non-verbal.

Thus, the tone we use when we communicate something is, in general, appropriate to the content of the message.

If it is a trivial fact, the tone will be neutral; if an important fact is involved, the tone will be serious; if good news is conveyed, the tone will be cheerful, full of joy.

The tone is always accompanied by the frequency with which the words follow each other - and which corresponds to the state of mind of the speaker - or the volume of the voice. For example, at a ceremony or commemoration, the tone will be grave, the voice will be low, and the words will be spoken infrequently; at a party, everything will be at the opposite pole: happy tone, increased frequency of words, raised voice volume.

All these aspects affect the efficiency of communication; they can increase or decrease it, depending on the context and the appropriateness of the content of the transmitted message.

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## **Study regarding the practice of active transport among secondary school students in Sibiu**

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### **Abstract**

*The present study addresses the issue of active transportation of secondary school students. Within it, the investigation and understanding of the practice of active transport such as walking, cycling, using rollers, etc. was pursued. to secondary school students in the city of Sibiu. The research aims to provide a clear and detailed picture of how students in this age group choose their transport methods and what are the factors that influence these choices.*

*Keywords: active transport, students, teenagers, active life, benefits, public health.*

### **1.Introduction**

Active transport is a major concern at global level, in the context of promoting a healthy lifestyle and reducing the negative impact on the environment. However, there are still important challenges in promoting active transport. Inadequate infrastructure, road safety concerns. In many countries there have been concerns about the promotion of public health projects, against the background of an alarming increase in problems related to obesity and sedentary behavior among young people. In this context, the present study can bring improvements to the health and well-being of students, but also to the positive influence that adopting an active lifestyle can have on the environment and local communities. Thus, it is proposed to bring to light the benefits and importance of promoting sustainable mobility for a healthy generation and for a cleaner and friendlier environment. It is also necessary to create a school and urban environment that supports and encourages the practice of active transportation. By highlighting the benefits and identifying potential problems or challenges, the paper can provide valuable information for school and local authorities in developing appropriate policies and infrastructure

Government and non-government organizations, and local communities have begun to develop programs and policies to encourage the use of bicycles, walking, and other forms of active transportation. In Romania, it has seen significant developments in recent decades, but it continues to be largely the subject of debates and concerns regarding safety and accessibility. A significant moment for the promotion of active transport among children was the "School on a bicycle" project. The initiative encouraged children to participate in road education courses and activities that promote the use of bicycles as a means of daily transport to school. These programs have been well received and successful in various cities across the country.

All these programs to promote active transport are necessary for children in their teenage years. Middle school students are in a crucial period of physical and mental development. Practicing active transport, such as walking or cycling to school, can significantly contribute to improving the health status of these young people. An active lifestyle during this time can promote not only good physical health, but also mental health

benefits such as increased concentration, reduced stress and improved self-esteem. Understanding the reasons and factors behind students' transportation choices is essential to developing effective strategies and policies. By investigating why some students opt for active transport while others do not, the obstacles or barriers they encounter can be identified and solutions can be proposed to encourage more people to adopt this mode of travel.

Social and community impact of promoting active transport: Promoting active transport among students not only has individual benefits, but can also contribute to the development of local communities. By fostering a safer and friendlier environment for pedestrians and cyclists, we can create more cohesive and connected communities with healthy and sustainable lifestyles.

This study focuses on investigating and understanding the practice of active transportation in middle school students, with the ultimate goal of promoting a healthy lifestyle and sustainable mobility. By analyzing the factors that influence transport choices and assessing the health and environmental benefits, it aims to contribute to the development of healthier, more active and environmentally responsible communities.

## **2. Organization of the research**

### **2.1. Aim of the research**

The main aim of this research is to investigate and understand the practice of active transport, such as walking, cycling or rollerblading, among secondary school students. Through this research, it aims to provide a clear and detailed picture of how students in this age group choose their transport methods and to identify the factors that influence these choices. Thus, it is desired to explore in depth the transport habits and preferences of students, the motivations behind the choice of active transport and to better understand how these aspects influence the mobility decisions of young people in their everyday environment. By analysing this data, it is hoped to obtain relevant and useful information for the development of appropriate strategies and policies to promote active transport among students, with long-term benefits for their health, the environment and urban mobility in general.

### **2.2. Research hypothesis**

Practicing active transportation (walking, cycling, etc.) is associated with a better general state of physical and mental health of secondary school students.

This hypothesis suggests that students who choose to get around using active means of transport such as walking or cycling have better overall physical and mental health compared to those who use other means of transport such as cars or public transport.

This may be supported by previous research showing that regular physical activity, such as walking or cycling, is associated with significant improvements in cardiovascular health as well as reduced stress and anxiety. Active movement can also contribute to a better mood, increase energy levels and improve concentration and cognitive performance.

### **2.3. Place and subjects of the research**

The research was carried out at the "Nicolae Iorga" Secondary School in Sibiu, the subjects of the research being 101 students of grades 5-8, thus offering a broad and

representative perspective on the behavior and transport habits of young people in this age category.

#### **2.4. Methods of the research**

The investigation method of the study was that of the self-administered questionnaire. This is one of the effective ways to get broad and diverse information. Students completed such anonymous questionnaires covering a wide range of questions. These include details such as their daily mode of transportation. They were also asked about the distance they usually travel, the frequency of their trips and why they choose a particular mode of transport over another. Thus, data was obtained on the students' transportation preferences and behaviors, providing a broad perspective on how they organize their daily routine.

### **3. Results**

What is your gender?

From this question we learned that 54.4% of the subjects of this questionnaire are male and the remaining 45.6% are female.

What is your main means of transportation to school or other destination?

The main modes of travel for students are: walking, cycling, scootering, followed by motorized means of transport such as: bus and car, and finally, the least used methods of travel they are: the skateboard and the rollers.

How many times a week do you choose to walk to school or another destination?

The results indicate that almost half of the subjects walk more than three times a week to school or another destination, at least 13.9% of the students do so at least once a week, and 21.5% claim not to be moves on foot.

How many times a week do you choose to go to school or another destination by bike?

62% of the subjects answered that they do not use the bicycle as a means of transportation at all, while the rest use it at least once a week.

How many times a week do you choose to go rollerblading to school or another destination?

Only 8.9% of students use rollerblades as a means of transportation at least once a week.

How many times a week do you choose to ride your scooter to school or another destination?

In the case of the scooter, the results are slightly better, thus almost 40% of the subjects use the scooter as a mode of transport.

How many times a week do you choose to ride your skateboard to school or another destination?

Unfortunately, skateboarding has lost its popularity in the past, with only 5% of kids today using this board at least once a week.

8. Do you like to practice active transport instead of motorized means?

This statistic, although it indicates that 90% of students practice this type of transport with pleasure, is a little worrying because of the 10% who do not favor this mode of travel.

9. What are the main reasons for choosing to walk to school or another destination?

According to statistics, it follows that children choose walking as a mode of transport, mainly for health and fitness.

10. How long does it take you to travel to school using active means of travel (on average)?

Most students spend around 10-20 minutes on their way to school, followed by those who spend less than 10 minutes to the same destination practicing active transport.

11. Would you still use active transport as a means of travel in the future?

Almost all subjects would practice active transport as a mode of transport.

#### **4. Conclusions**

The study on the practice of active transportation among secondary school students brought to light the significant and multiple benefits that these ways of moving can bring. It highlighted the fact that most students would prefer bicycle, scooter and walking instead of sedentary ways of moving, which represents a great potential at this age to practice active transportation at this age.

Starting from these results in the municipality of Sibiu, schools should implement educational programs that promote active transportation and educate students and parents about its benefits. These programs may include lessons on the importance of physical activity, safe and environmentally friendly ways to travel, and information on the positive impact on physical and mental health. Involving health and physical education professionals in the development of these programs can bring expertise and guidance in creating relevant and engaging materials and activities for students. Local authorities should allocate resources to building and improving road infrastructure that is safe and friendly for cyclists and pedestrians. This may include the creation of dedicated cycle lanes, extended sidewalks and appropriate markings, as well as well-lit and signposted pedestrian crossings. Creating safe school zones with reduced speed limits and increased traffic enforcement can encourage students to choose active transportation and feel safe during their commutes.

Organizing educational events and campaigns in collaboration with the local association can stimulate interest and participation in active transport. Such events may include cycling tours, skateboarding or rollerblading contests, as well as road education sessions. Close collaboration with local authorities, non-governmental organizations and other interested institutions can facilitate the implementation and promotion of active transport initiatives. These partnerships can provide financial, logistical and communication support for health and environmental projects.

#### **5. Discussions**

In the context of the afore mentioned study, we can say that it is necessary to continue research in the evolution of the transport habits and the state of health of the students is essential. Such studies can provide important data for adjusting and improving existing programs and initiatives. Implementing progress monitoring systems, such as regularly collecting data on the number of students involved in active transport, distances travelled, impact on health and academic performance, can provide a clear insight into the benefits and outcomes achieved.

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## **Coaching vs mentoring in sport performance**

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### **Abstract**

*Coaching is thought of as a process of training and supervising an athlete to improve his performance, while mentoring refers to the counseling process carried out to guide and support a person for the development of his sports career. Training is a process by which someone is taught the qualities and motor skills or skills needed for a certain sport.*

*On the surface, these three terms look and sound very similar, but they are anything but. In the following chapters we will develop and compare each process separately.*

**Keywords:** *sport performance, mentoring, coaching.*

### **1. Introduction**

In a sports team, various athlete development programs are undertaken to improve the level of performance, increase their involvement and create a stronger team by increasing the relationships between teammates, trainers, coaches, technical staff, etc. This athlete development is often accomplished through any of three techniques:

- Coaching
- Mentoring
- Training

These terms can be confusing because of the similarity they can convey, but in reality there is a difference between the three words. We would like to address these techniques and clarify their meaning and the time or situation when one technique or the other should be selected. These techniques are an essential component in increasing the performance development of the athletes you work with, which in turn creates a significant positive change in the entire sports team.

Coaching is thought of as a process of training and supervising an athlete to improve his performance, while mentoring refers to the counseling process carried out to guide and support a person for the development of his sports career. Training is a process by which someone is taught the qualities and motor skills or skills needed for a certain sport.

On the surface, these three terms look and sound very similar, but they are anything but. In the following chapters we will develop and compare each process separately.

### **2. Differences between coaching and mentoring**

Definitions.

**Coaching:** The International Coaching Federation (<https://coachfociation.org>) defines coaching as "Partnering with athletes in a creative and challenging process that inspires them to maximize their personal and professional potential."

**Mentoring:** A simple and broad definition of a mentor is "an experienced and trusted advisor." Mentoring is defined as a "system of training athletes under which a senior or more experienced athlete (the mentor) is assigned to act as a counselor, advisor or guide to a junior or novice athlete. The mentor is responsible for providing support and feedback for the athlete under his charge." While many sports teams offer mentoring programs, often as part of a leadership training program, it is common for mentors to work with athletes outside of their team.

### Selection of the coach or mentor

The coach and mentor can be selected to work with professionals based on their expertise in the field (extensive experience, considerable achievements, experience with national teams, high-profile competitions), expertise for each position in the team for team sports (on the side tactics, if the mentor worked in a certain position similar to the athlete's), set of skills (communication or socialization skills, psychological counseling skills, collaboration and partnership) or other valuable expertise that can improve the life of a professional athlete, such as athletes of national or Olympic teams.

The best way to understand how coaching and mentoring relationships are structured is to make a close comparison:

Tabel 1. Coaching vs Mentoring

Topic	Coaching	Mentoring
Time interval	The relationship is more likely to be short-term (up to 6 months or 1 year) with a specific outcome in mind. However, some coaching relationships may last longer, depending on the goals achieved.	The relationship tends to be longer, lasting a year or two and even longer.
Concentration of attention	Coaching is more performance oriented, designed to improve athletic performance.	Mentoring is determined more by development, analyzing not only physical abilities, but also beyond, taking a more holistic approach in the development of athletes' careers.

Structure	Traditionally, more structured, with regularly scheduled meetings such as weekly, bi-weekly or monthly.	In general, the meetings tend to be more informal, based on the demands made by the athletes.
Evaluation	The coach hired for their expertise in a given area, one in which improvement is desired. Examples: motor skills or specific skills, leadership, communication, sports psychology	In organizational mentoring programs, mentors have more experience and expertise in a specific area than some coaches. The person who learns and is inspired by the mentor's experience.
The daily routine	The coach's agenda is co-created by the coach and trainer to meet the specific needs of the athlete.	The mentoring agenda is set by the mentor. The mentor supports that agenda.
Asking questions	Asking thought-provoking questions is a top coaching tool that helps the coach make important decisions, recognize changes in behavior and take action.	In the mentoring relationship, the athlete is more likely to ask more questions, utilizing the mentor's expertise.
Expectations / results	The outcome of a coaching agreement is specific and measurable, showing signs of improvement or positive change in the desired area of performance.	The results from a mentoring relationship can change and change over time. There is less interest in specific, measurable outcomes or changed behavior and more interest in the overall development of the individual.

**When to use the services of a coach**

- When you need to develop a player's raw talent with a specific new skill
- When you want to improve your uninitiated athlete with a new skill or improve an already learned skill



- When some athletes do not meet the expectations or the proposed goals
- When leaders fail to integrate new athletes into the team, such as managing new athletes or tactical schemes
- When an athlete wants to work extra for advancement in the sports team
- Improving behavior in a short period of time, such as training an athlete for a specific position on the team
- Work one-on-one with leaders who prefer to work with a coach rather than participate in "team" training programs

When to use the services of a mentor

- Motivate talented athletes to focus on developing their sports career / life
- When you want to inspire athletes to see what is possible in their sports career / or life
- When the development of athletes' leadership is desired
- Transfer knowledge from senior to junior professionals
- Expanding intercultural ties within the sports team
- Use the mentoring process as a gateway to team succession planning

When deciding to use a coach or mentor, consider the goal you want to achieve. The coach and mentor will help athletes in various ways to achieve their goals. In fact, some athletes use multiple coaches or multiple mentors throughout their career, depending on their desired goals. In both coaching and counseling, trust, respect and confidentiality are at the forefront of the relationship.

Increasingly, mentoring and coaching are used interchangeably in the context of skills improvement. This is why on many sports teams, a mentor is expected to take on coaching responsibilities as well. But despite what most people might think, there is a big difference between a mentor and a coach.

If you're wondering how these two roles differ and what these professionals bring to the table, you need to know the specific responsibilities of a mentor and a coach.

A mentor, in simple words, is someone who provides knowledge, expertise and advice to those with less experience. Taking advantage of their experience and skills, mentors guide their juniors in the right direction.

A mentor helps athletes consider career growth opportunities, gain confidence, and improve interpersonal skills. Support is based on the mentor's own experiences and learnings, making them more reliable figures in the eyes of the team.

As mentioned above, a sports team mentor provides support to younger athletes in career growth and interpersonal skills development. Specifically, a mentor helps younger athletes explore their skills and motor skills, set development goals, develop new contacts, and identify resources. In this way, a mentor serves as a professional advisor and role model for young players.

The role of a mentor evolves as the needs of younger athletes change over time. In most cases, mentoring relationships are informal, while such relationships can be more formal. In formal mentoring relationships, mentors follow a structured approach to set realistic expectations and achieve mutual benefits.

Good mentors are always willing to share their skills and knowledge. Because they have faced the same challenges as the athletes they work with, they are more empathetic to their needs.

To inspire and build trust and communication, mentors have a positive and appropriate attitude. These qualities make it easier for athletes to discuss their professional goals and concerns with them.

From a performance perspective, mentors help athletes gain more confidence in their abilities and develop skills to add value. Athletes become confident and satisfied within sports teams, which explains why a number of sports teams are now shifting their focus to identifying the right mentoring programs.

A coach focuses on specific skills and development goals, breaking them down into concrete tasks that must be completed within a certain period of time. By doing so, the coach helps and guides the athletes to clarify their vision of their own development.

For many sports teams, identifying and prioritizing goals is a big challenge. The Coach addresses this challenge by helping sports teams prioritize their goals based on importance. They follow a more formal and structured approach to solving problems and managing aspects specific to the sports team.

A good coach focuses on identifying the goals of the sports team, prioritizing them and choosing the right path to achieve them. In this sense, the coach helps sports teams become more responsible, goal-oriented and competitive.

The coach also covers various aspects of leading the team to success. These may include performance targets, strategies and planning for sports training, communication skills, team building, leadership and more.

The coach comprehensively assesses the sports teams they work with to recognize their core strength and growth challenges. Based on their assessment, they help formulate a plan or strategy, set targets and identify the steps needed to achieve the desired results.

A great coach challenges the status quo, questions management decisions, and requires management staff to take a closer look at their approach. In this way, they bring a new perspective on strategy and goals for sports performance. But rather than questioning how things are going in a sports team, a coach guides the club to adopt appropriate growth strategies.

For clubs, a coach helps them succeed by guiding them in the right direction. Clubs often lose sight of where they want to be and the steps they need to take to achieve success, a coach provides clarity. They provide pointed advice and opinions to keep sports teams on track.

### **Differences between a coach and a mentor**

By now, it should be clear that a mentor differs from a coach. To summarize the difference between a mentor and a coach, here are some specific points of differentiation:

Mentoring is a long-term process based on mutual trust and respect. In contrast, coaching is for a short period of time.

Mentoring is more focused on creating an informal association between the mentor and the athlete, while coaching takes a more structured and formal approach.

A mentor has first-class experience in the psychological field. However, a coach does not need to have practical experience of the type of work the mentor is doing.

A sports mentor's top priority is to help develop skills that are not only relevant to mentors in their current job, but also for the future. For a coach, the highest priority is to improve performance that impacts the current activity.

Both mentors and coaches are important in the environment in which they work. To benefit most, sports teams need to be clear about what their priorities are and what type of support they are looking for. With the right support, sports teams can become more productive, profitable and competitive.

It is known that a modern manager must be practically more than a leader from the point of view of his staff. Precisely for this reason, he will have to play several roles simultaneously: that of mentor, trainer and coach. Such training can ensure the manager's success in sports performance because he will be working with a well-trained and motivated team. Thus, managers who have a good training in the field of sports psychology have the opportunity to develop the native abilities of athletes, which gives them the opportunity to effectively use the team they manage.

In order to achieve the expected results in the activity undertaken, athletes must be guided, prepared and helped to develop their sports skills as much as possible from the beginning. This "training" is most often carried out by managers who have training in the field or by people who have solid knowledge of mentoring or coaching.

Thus, coaching and mentoring represent the best methods by which maximum performances can be obtained and the potential of the athletes with whom one works is correctly guided, the final goal being that of increasing the performance of the sports team.

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## **Qualities of a good coach**

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### **Abstract**

*Coaching is thought of as a process of training and supervising an athlete to improve his performance, while mentoring refers to the counseling process carried out to guide and support a person for the development of his sports career. Training is a process by which someone is taught the qualities and motor skills or skills needed for a certain sport.*

*On the surface, these three terms look and sound very similar, but they are anything but. In the following chapters we will develop and compare each process separately.*

**Keywords:** *sport performance, mentoring, coaching.*

### **1. Introduction**

#### **Qualities of a good coach**

A good coach is positive, enthusiastic, supportive, reliable, focused, goal-oriented, connoisseur, observant, respectful, patient and a clear communicator.

#### **Understanding sport and driving by example**

To be able to learn effectively, the coach must have a thorough understanding of the sport, from fundamental skills to advanced tactics and strategies. Coach may have experience in the game, but not all former athletes also become good coach. The coach must plan the season, know the progressive nature of adaptive training, know the rules and provide a simple and structured environment to succeed athletes. Plan - Prepare - Repeat - Perform - The competition has the essence of a good workout.

A good coach should have a recognised qualification from the governing body for his sport. Not every great coach will have the qualification at the highest level, but every coach should have a qualification.

#### **„Sponge” for Knowledge / Deep Thinker / Visionar**

When a good coach knows a lot about a sport, you have to continue to learn and develop new training techniques. Staying up to date and being informed about new research, training and everything that supports the coaching process, attending clinics and training camps and seeking advice from other coaches and athletes is a sign of an excellent coach.

Watching videos, reading books, and studying posts can also be helpful. Participation in courses in a number of topics such as sports psychology, nutrition and exercise physiology is an excellent idea and is easily accessible for any coach who wants to grow and improve.

**Share knowledge/educate others**

Acquiring knowledge is important, but having the confidence to share and seek the opinions of others, especially those outside your sport, is a key quality. Being happy to try new things and different ideas in an attempt to improve performance. The best coaches clearly understand that they are there to educate athletes.

Most athletes spend most of their time training alone, so the more they really understand what they're doing and why they're doing it, the better they'll train and practice.

**Heavily energized and motivating**

A successful coach is a motivator with a positive attitude and enthusiasm for sports and athletes. The ability to motivate and inspire is part of the formula of success. Getting athletes to believe in themselves and get easier from some coaches than others. The coach who can motivate is able to generate the desire to excel in their athletes. Motivation can mean keeping the practice fun, fresh and challenging.

When you motivate a player, a good coach emphasizes trying to achieve performance goals, not result goals. A coach should ensure that athletes understand that you can fully control your effort and training, but cannot control what your opponent does or the outcome of each match. Fun and positive condition are the cornerstones of a successful coach.

The athlete knows, values and respect that the relationship is aware of individual differences in athletes is an important ingredient in the excellence of training. Shouting, screaming and other emotional displays may work for some athletes, but it could have a devastating effect on others. Individualization of communication and motivation to specific athletes is vital for successful training. Paying attention to the athlete's emotions, strengths and weaknesses is the responsibility of a good coach. Understanding each sport is different and having different ways of receiving information about the coach is essential for a good workout, especially in a team game.

**He is an effective communicator and teacher**

The effective coach is one that communicates well and exudes credibility, competence, respect and authority. A coach should be able to explain the ideas clearly. Clear communication means setting defined objectives, providing direct feedback and strengthening key messages. Recognition of success is also essential for good communication. Language is a key part of training, and keeping all actions at a simple and easy-to-understand level is a sign of a successful coach.

**He's a good listener**

Part of effective communication is listening. The coach should be a compassionate ear and should ask athletes comments, questions and contributions. The effective coach will actively seek information from athletes and will work in an environment where athletes are encouraged to present ideas and thoughts to the coach. Eventually, the good coach will be flexible and will use player feedback to modify the training plan if necessary.

**It is disciplined, strong in character and integrity**

Athletes must follow a reasonable set of rules both on and off the field, and if they are ignored, the coach is responsible for discipline. Trust between sportsman and coach is of crucial importance at all times and essential for successful coaching - trust comes from the quality of actions from both coach and player. When violations occur, you have to follow discipline. The evidence argues that for discipline to effectively change behaviour, it must be easy, prompt and consistent. Dedicated to individual integrity, values and personal growth.

**He leads, for example, with a very high attitude towards hard work**

The effective coach also leads by example. A good coach follows the same rules as expected of athletes. A coach who wants respect should also show respect. The coach who expects athletes to remain positive must show a positive attitude. A coach who wants athletes to listen should also listen to athletes.

**Shows commitment and clear passion for sport.**

The best coaches are in the profession because they like it. As well as being strongly committed to sport and success, the best coaches show a clear commitment to seek the best interest of individual athletes. Coaching in many ways is a 24-hour job every 365 days a year, as the top coach lives and sleeps with the art of coaching under the pillow. Able to think about every possible scenario and allow the athlete and to function to the maximum when the pressure is increasing.

What does a good coach do?

1) The best coach believes in himself – the good coach inspires the players to do more than they think they can. In fact, all good teachers do this. It causes students to reach possibilities beyond the limits of their beliefs. Part of this involves building the athlete instead of taking him down. The good coach always builds his self-esteem, instead of undermining him. This self-esteem building is neither a trick nor is it artificial. In other words, the coach doesn't praise a mediocre effort. The coach is not caught up in power games that leave the athlete to question his abilities.

2) The truly effective coach does not use humiliations as "teaching tools" - they understand that embarrassing or humiliating a young athlete for a mistake, failure or poor performance is an aggressive attack on that athlete who does not build mental stamina improves performance. There is nothing educational or constructive about it.

3) High-value coach is a life teacher - a good coach understands that what he learns goes far beyond X and O. This type of coach doesn't just learn the skills, technique and strategy of the narrow limits of the sport. Instead, he is looking for opportunities in which important life lessons can be taught, such as mastering weights, handling and returning from failures and defeats, trusting your teammates, sacrificing individual needs for the benefit of the group, emotional treatment of winning and loss, good sportsmanship, fair play, honesty, integrity, etc.

4) The best coach keeps the game perspective - do not distract from how important a game is in relation to their work as a teacher. Similarly, they understand that sport is not just playing and is just a pretext to learn other more important life lessons. They understand that

what they learn and how they learn it will have an impact on the student who goes far beyond the sport.

5) A great coach doesn't take on all of his performance but also with those around him - the best coach is mentally healthy enough to know that it's not 100% performance, no matter what others around him can say. He doesn't feel diminished as an individual when his teams lose or fail, nor do they feel much better about themselves when their teams succeed. These individuals understand that the coaching process is just an activity among many others, therefore, do not let this define it as a person. Coaches who have problems with athletes do so because they are more emotionally vulnerable and tend to feel threatened by a loss or failure. Their egos are on the line whenever these individuals compete and therefore feel they have much more to lose. Many glaring mistakes of the coach come directly from his overuse on the outcome of the game, because individual self-esteem is too caught up with this result.

6) The excellent coach understands the differences that each individual he works with has - the best coach have a basic understanding that every athlete on their team is different in attitude, personality, responsiveness, sensitivity and how they deal with criticism and adversity. These coaches take the time to get to know the differences and individual styles of each athlete. They then customize what they say and how this athlete treats it to achieve maximum efficiency. They know that while one athlete can respond well to one loud and high voice, this approach can inhibit another.

7) The best coach trains the person not just the athlete – the truly effective coach takes the time to get to know the athlete as a person. He is interested in the life of the athlete outside the gym, the field or the track. They don't see personal, academic or social issues as a distraction from coaching work. They see "outer issues" as an opportunity to continue building a relationship with the athlete. This kind of care is never lost by always watching the athlete. The coach who is interested in the overall life of the athlete is more reliable and respected than those who do not. As a result, the coach who really cares about the athlete as a person finds that their athletes are more motivated and work harder. You can never separate the athlete as a performer from who he is as a person.

8) The best coach is flexible - they approach their athletes, continuously looking for a better way to reach each of them. When an athlete struggles to learn something, the better coach does not regard this as a "learning disability" and blames the athlete for his incompetence. Instead, it approaches this situation as a 'teaching opportunity' and therefore changes the way it presents the material of that athlete. If one approach doesn't work, then try another until they figure out what's the best way to get to that particular athlete.

Just because that athlete may not respond positively. does not mean that he has an attitude or a commitment problem. The coach who is rigid, who continually adopts the attitude that "it's my way or my way" are much less effective than those who have mastered the art of being flexible. You understand here that flexibility does not mean weakness. You can be flexible and strong at the same time.

9) Great coach are great communicators - i understand that the communication process is a two-way path and involves a return between coach and sportsman. Bad coaches think the communication process is one-way. Speak and athletes listen. Instead, effective communication requires you as a coach to listen carefully to what your athletes say. When your athletes talk, you have to be quiet inside so you can listen. If you don't listen to them

carefully when they speak, then you won't have a clue what your athletes really say. or how to help them best. Far too many coaches are too busy listening to what their athletes say to hear them. If you can't learn how to listen, then you won't really be effective in achieving the maximum performance of your players.

10) Good coach communicates and helps educate athletes with their parents - they make it common practice to communicate with parents and explain to them about the sport and the role they need to play in a team. Your success as a coach often depends on getting your parents to work with you, not against you. The only way to do this is if you give time to talk and train your parents. This means that you have to learn to listen to their concerns and questions. Take a proactive role with them. Don't wait for a problem or crisis before deciding that it's time to actually get close to your parents.

Do this right from the beginning of the season and do it often. Tell them about the team's support role. Help them understand that their job is not to motivate or train their child. Teach them what appropriate and inappropriate behaviors are in games and workouts. Educate them about sports activity and what it takes to excel. Explain your philosophy about competition and game time. Be open to feedback in a non-defensive way.

11) A good coach uses the principle of modeling - good coaches know that what you say and how you act are congruent. The best way to operate is modeling. The coach operates on the principle that their actions and the way they behave will always speak much louder than his words, which is why he actively shapes the behaviors and attitudes that you want your players to adopt.

12) Good coach keeps the learning environment safe emotionally – they understand that the emotional climate of the team dramatically affects the way players train and perform. They follow directly and immediately the offensiveness, the quarrels and jealousy that sometimes arise between players. They give a very clear message that the arguing and mistreatment of others will not be tolerated and are contrary to the team's mission. As a result, this type of trainer creates a team-friendly atmosphere that is absolutely crucial for optimal learning and maximum performance.

13) High-value coach believes in their own athletes - inspires athletes to believe in themselves by continually putting them in situations that challenge their limiting beliefs. They don't allow their players to just pass the status quo. They do this by pushing their athletes out of their comfort zone, physically, mentally and emotionally, and then helping them discover that they can actually do better than they first thought they could. They learn the "get comfortable being uncomfortable" principle, which states that the only way to grow physically and emotionally is to constantly challenge yourself to do things that are not easy. In this way, they refuse to tolerate mediocrity in effort, attitude, technique, training or performance.

14) The best coach is based on the principle of continuity - continuously shapes the attitudes and behaviours that players want to adopt. They maintain a "beginner's mind" when it comes to their professional development. They understand that no matter what success they may have had in the past by doing things their own way, they can always learn new and better ways. In this way, this coach continually leaves his comfort zone as an "expert" and puts himself in the more uncomfortable position of "beginner and student". Because this coach



"walks the discussion" and asks his athletes exactly what he demands from himself, his athletes are more motivated to meet the coach's higher expectations.

15) The best coach is passionate about what he does – these coaches know that passion (love) is a high-test fuel that will fuel you over obstacles, beyond unpleasantness and through frustration until you achieve success. Their passion is infectious, motivational and inspired.

16) The good coach is empathetic and realistic about the level of his players - he has the ability to communicate to his athletes that he really understands them. When you're empathetic, you let your athlete feel that, as a coach, he deeply understands. This goes a long way in building loyalty, self-esteem and motivation of athletes. Keep in mind that being empathetic doesn't necessarily mean you're an emotional impulse. You can have the ability to understand where your players come from. and continue to make the coaching decisions you consider necessary. The coach who lacks this skill or doesn't take the time to give the emotions to their athletes, because they mistakenly believe that "all this emotional stupidity" is a total loss, they end up inappropriately undermining their coach efforts.

17) Good coach is honest and honest - I know that their most powerful learning model as a coach is modeling. They also know that the way they behave in relation to their athletes, parents, opponents, referees, fans and the media is never lost in their players. They are honest and demonstrate characteristics and class in everything they do.

18) The best coach realizes that sport is just a game, and games are meant to be fun. They find creative ways to integrate this fun into what they do during the season, daily in practice and during competitions. When an athlete enjoys it, the athlete is free and relaxed. Since trust and relaxation are two of the most crucial ingredients to achieve maximum performance, it is in your best interest as a coach to find innovative ways to keep your athletes smiling.

19) Good coach are not infatuated in their interactions with players or parents - I understand that part of being a good communicator is that you have to be open to negative feedback and criticism, because within this feedback are the seeds to become a better or successful coach.

20) The extraordinary coach uses his achievements and failures as a sportsman as valuable teaching opportunities - he knows that his athletes must be relaxed and confident to play to their potential and that the fear of making mistakes will always undermine this state of relaxation. To this end, the good coach gives athletes permission to fail and make mistakes. He instills in his players the understanding that mistakes and failures are nothing but feedback about what he has to do.

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## Differences between coaching and sports training

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### **Abstract**

*Coaching and training are often used interchangeably and this leads to confusion, especially when words like "guidance" and "counseling" are added. Not only people outside the sports phenomenon do not understand the differences, but also some managers do not know the differences between a trainer and a coach, but so many of their actions involve different directions.*

*Just to get us all on the same page, let's distinguish between coaching and training right up front. Essentially, training is about the transfer of knowledge, while coaching is about improving knowledge (or skills) - development, in other words.*

**Keywords:** sport performance, mentoring, coaching, sports training

### **1. Introduction**

What is adaptive learning?

Comparing coaching with sports training

The following is a quick summary of the major differences between training and coaching.

Sports training is mainly based on:

- Knowledge transfer
- Often used in group setting
- Often off-site or at a special facility
- Often used for new selections
- Usually structured
- Formal
- Strict, distant from the athlete
- Focused learning

The coaching process involves the following:

- Improving knowledge or skills
- Usually, it is done one-on-one, but it can also be done collectively
- Usually at the place where the activity is carried out
- Used more often with experienced athletes
- Usually unstructured
- Informal, conversational
- Not so strict as an approach, much closer to the athlete
- Focused development

Obviously, coaching is a way to apply learning in an informed way. In training it is hoped that the athletes will remember the knowledge so that the next piece of information can be applied. In the case of coaching, retaining and being able to apply knowledge will improve performance and productivity. More knowledge and a multilateral development lead to better performances.

#### Moving the coach on the priority ladder

The only problem is that people don't remember very well. Research shows on average 50% of the information received in a presentation is forgotten within an hour. After 24 hours, on average, 70% is gone. And in a week, 90% of the information is no longer found.

Because the best coaches do this frequently and continuously, coaching is a way to impact that even the best athletes will simply remember valuable information. Preparation is not enough, so we'll say it again: learning by repetition is perishable compared to learning by developing skills and motor skills in athletes.

#### Coaching is a collective activity (coach – athlete/athletes)

Certainly, training cannot aim to develop all athletes in the training room equally and towards maximum performance. And coaching, applied without the foundation of previous basic knowledge, will have no success. Excellent retention and application of information requires both training and preparation in equal measure. Maybe if part of those efforts were focused on the complex training of the athletes both through training and through individual or team coaching sessions, the results would be much better.

#### Sports training

Sports training is used for very specific initiatives and is usually training for performance sports.

Training is also used to learn and develop specific motor qualities and skills.

All training training you've probably attended in the past has had a leader or coach.

A coach is usually someone who works individually or with fewer athletes in a small setting to develop a specific skill or motor quality.

#### The basics of sports training:

- They occur in a large number of athletes
- Learning objectives focus
- I follow the sports performance and the training is according to the tell me, let me and test me model.
- Directs learning towards performance
- Training is usually low to no level of responsibility

#### The basics of coaching:

While coaching will still involve learning and striving for individual or small group goals/development, there is a very different focus and a different end result.

Coaching is an ongoing activity designed to help the athlete maximize performance and reach maximum potential through accountability and sustainable development.

A coach has a dedicated interest in the success of each athlete they work with and will show them how to reach that next level of growth by directing action for change.

The coach will help the athlete to meet short-term goals, step by step towards long-term goals, which each athlete has set out to achieve, using proven skills, resources and methods.

Hiring the services of a coach is truly the biggest step you can take when you as an athlete want to truly invest in your own success.

In addition, the good coach will take a "neat" approach to really help the athlete work through the things they don't yet have mastered.

This could mean an uncomfortable conversation about bad habits, limiting beliefs, or anything else that might be holding the athlete back from reaching their full potential.

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## **Introduction in acclimatisation to altitude**

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### **Abstract**

Atmospheric pressure is a measure of the weight of the air column on the surface unit, measured at a certain height. The higher the altitude, the lower the atmospheric pressure and therefore the amount of oxygen decreases. But, through an efficient acclimatization (gradual habituation of the body to the altitude) and with a lot of specific training, these uncomfortable states conditions for the body can be avoided, states conditions which in many cases can pose a risk end up abandoning the proposed route or more seriously at death.

**Key words:** altitude, oxygen, performance, symptoms.

### **Introduction**

As Roach shows, in order to ease the acclimatization of those who may be affected by altitude, whether be they are athletes or altitude workers, in 1991 the Lake Louise Committee convened and agreed a series of diagnostic criteria and a rating system for symptoms of AMS (Acute Mountain Sickness), thus creating appearing the LLS - Lake Louise Score. The aim was to provide an understanding of AMS enough, specificity, sensitivity and its flexibility to demonstrate it's allowed use in different ways and to facilitate a comparison of data study results with the score with the results. The old ESQ (Environmental Symptoms Questionnaire) had 67 questions and needed time and patience to complete, which and then needed to be was then studied by several specialists.

A major advantage is, fortunately, the new LLS scoring system takes a few minutes to complete and evaluate. Several specialist participants reported results comparable to ESQ in terms of understanding sensitivity and learning of the criteria specificity. Therefore, it is recommended to use the new LLS scoring system for AMS research. The LLS consists of a short selfassessment questionnaire, which is sufficient or may include an additional clinical evaluation. The score is a sum of 5 answers to specific AMS questions, and the results can be checked through a clinical interview. The clinical evaluation score is performed by an assessor who and targets three areas signs: mental status, ataxia and peripheral edema.

It is based on several effects or symptoms:

- elevation in the last 4 days;
- the presence of a headache;
- the presence of at least one other symptom;
- total score of 3 or more on questionnaire questions;
- total score.

Table 1 - Selfassessment LLS questionnaire for AMS

1. Headache	0 - No pain 1 - Easy pain 2 - Moderate pain 3 - Severe pain, incapacity
2. Gastrointestinal Symptoms	0 - No symptoms 1 - Poor appetite or nausea 2 - Moderate nausea or vomiting 3 - Severe nausea or vomiting, incapacity
3. Fatigue and / or weakness	0 - No fatigue or weakness 1 - Fatigue / Light Weakness 2 - Moderate fatigue / weakness 3 - Serious fatigue / weakness, incapacity
4. Dizziness / Confusion	0 - No dizziness 1 - Light Dizziness 2 - Moderate dizziness 3 - Severe dizziness, incapacity
5. Sleep disorders	0 - Sleeping as usual 1 - He did not sleep as usual 2 - Waking up often, poor sleep 3 - He did not sleep at all incapacity

An optional question is also recommended to evaluate the functional consequences of the symptoms and signs. This system is designed for its use in large studies or smaller clinical trials (Roach, 1993).

Table 2 - The functional consequences of the symptoms and signs

If you experience one of the symptoms, how does the activity affect you?	0 - No activity reduction 1 - Slight reduction in activity 2 - Moderate activity reduction 3 - Severe reduction in activity (bed rest)
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As Peng shows, high altitude acclimatization is a series of physiological processes that occur when

people go to high altitude. At an altitude of 3,700 m the barometric pressure is only 483 mmHg, so only 40% is the oxygen / breath concentration. With limited decreasing oxygen available in the ambient air, this is a just an ambient stress, however with the increase in terrestrial altitude, this and lowers the oxygen content of the tissues.

The body needs to adapt, operate with less oxygen to cope with physiological responses, respiratory, cardiac, oxygen, muscle, metabolism, oxygen consumption and more. The body tissues are gradually adjusted to protect themselves against the drop in oxygen pressure and to mitigate the effect with a remarkable decrease. High altitude climate conditioning is a good strategy to prevent AMS and other altitude disorders, and allows people to achieve a maximum physical and mental form at altitude. This process varies with each individual, with several factors influencing acclimatization.

Previous studies show that smoking and alcohol consumption are risk factors for high altitude diseases and it should be avoided by those who go to altitude should be totally

avoided. It has been found that those who frequently consume alcohol are exposed to gastrointestinal bleeding and diminished breathing gas, resulting in lower alveolar and arterial oxygen pressure. It is important to recognize the importance very important is the interaction between these individual factors and the set acclimatization period, since high altitude acclimatization is a process closely related to time.

In the study by Peng on 811 healthy young Hun, repeated tests were made to individuals aged 16-22, consisting of smokers and alcohol consumers, repeated measurements were made to investigate

physiological changes occurring during high altitude acclimatization. Initially, the subjects' individuals stayed at an altitude of 500 m for 10 - 14 days, then reached over 3,500 m.

The study consisted of three phases: the baseline (before climbing the mountain), the acute phase (immediate arrival in the mountain) and chronic phase (living at altitude, about 2 months).

As a reference, physiological performance was taken before climbing to altitude, the acute phase was an important period where when many altitude problems occurred. The physiological, but not pathological, responses of the individual's subjects allowed us to benefit from an understanding of the mechanism in which the body itself defends against the hypoxic environment and should lead us to other hypoxic studies.

In the chronic phase, physiological performance can be taken as a consequence of acclimatization at high altitude. In fact, the body is able has managed to adapt to the altitude and acclimating to the hypoxic environment. Oxygen deficiency stimulates the bone marrow to increase the number of red cells in the body.

There was a significant increase in blood cells in the acute phase which was and sustained in the chronic phase, and the platelet count decreased significantly to help the blood flow. The volume of red blood cells had continued to increase, as did hemoglobin, which has led to increased oxygen to the brain oxygenation.

The concentration of SaO<sub>2</sub> decreased significantly in the acute phase, and in the chronic phase, after a series of physiological changes, it increased again but remained lower than at the baseline.

In the acute phase, the effect of smoking was not significant, and in the chronic phase the volume of red cells in smokers grew less, while respiratory function increased more than in nonsmokers. It is known that smokers have an increased risk of suffering from altitude syndromes and are becoming more difficult to acclimate to altitude. The result of the study showed only a limited effect of smoking on physiological responses to high altitude acclimatization.

For those who consume alcohol, blood pressure increased more than those who did not consume; in the acute phase the volume of red blood cells grew less than in nonconsumers in both acute and chronic phases, and respiratory function increased less in chronic phase. However, the volume of red cells and SaO<sub>2</sub> in the subject subjects increased more than non consumers in the chronic phase.

The study revealed that the effect of smoking and alcohol consumption on physiological processes of high altitude acclimatization was not very serious, which can be attributed to the following factors:



the subjects were very young, 16 to 22 years old, the duration of smoking and drinking was in the

short term the number of status of smokers and drinkers was small when subjects were coopted in the study, they were asked to refrain from smoking and drinking due to work requirements, so only their consumer history was evaluated for physiological responses to high altitude acclimatization (Peng, 2013).

For athletes born at moderate altitude, hemoglobin and red cell volume increase due to exercise and altitude exposure compared to athletes at sea level. This adaptive response, unique to athletes born and living at altitude (Swiss climbers, Nepalese Sherpa, Kenyan athletes, Colombian cyclists) can contribute to their spectacular endurance training. Longterm training of altitude cyclists has shown an improvement in aerobic capacity and a strong training peak during sea simulation (McArdle, 2015).

### **Conclusions**

Altitude sickness is the term for medical conditions that can happen when you move to a higher altitude too quickly. The higher up you go, the thinner the atmosphere gets. That means breathing in the same amount of air gets you less oxygen than at a lower altitude. Altitude sickness happens when your body has trouble adjusting to the difference in how much oxygen you're getting with each breath.

You are at a high altitude and you or someone else, get medical help immediately if:

- have symptoms of altitude sickness and feel very unwell;
- are confused;
- have problems with balance or coordination;
- are seeing or hearing things that are not real (hallucinations);
- feel short of breath, even when resting;
- have a cough or are coughing up frothy or bloody spit;
- have blue or grey skin, lips, tongue or nails (on brown or black skin this may be easier to see on the palms of the hands or the soles of the feet);
- are very sleepy or difficult to wake;
- go to a lower altitude straight away (around 300 to 1,000 metres lower) if you can.

Altitude sickness usually gets better without treatment if you rest. You may be given medicine to help ease symptoms.

If your symptoms are more serious, you may be given:

- steroid medicine;
- medicine to lower your blood pressure;
- oxygen through a mask.

Rarely, you may need to be treated with oxygen in a special air-tight chamber (hyperbaric chamber) to increase the level of oxygen in your blood.

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## Developing a training program for altitude climbing

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### **Abstract**

*At present, mainly due to the non-existence of subjects willing to be researched in extreme conditions, but also the lack of working conditions, specialized knowledge, information, publications in the field are quite few, most being from american literature, USA being one of the countries with a tradition in mountaineering, nature offering many possibilities for practicing this sport. For this reason, I have endeavored to contribute to the completion of current knowledge in this field.*

**Keywords:** *mountaineering, altitude, acclimatization.*

### **1.Introduction**

We can start from the definition of effort by Dragnea et al.: "training effort is the field of conscious overcoming, by the athlete, of the demands of training for physical improvement, for reaching a higher technical and tactical level, as well as for emphasizing mental and intellectual factors, of the resulting pathways deliberately produce changes in the performance and adaptation capacity of the organs and functional systems involved" (Dragnea et al., 2006).

Florescu claims that in the sports branches where physical training has a dominant character, the dynamics of effort are controlled by volume and intensity indicators, but insufficient for sports where technical-tactical mastery is very complex. Thus, the complexity of the effort appears, from the need to make a bridge between physical and technical-tactical training (Florescu, 1985).

Wehrlin, a leading expert in the field of periodization of sports training and planning of hypoxic training and who, to a large extent, has exerted influence on the successful developments of athletes at the Olympic Winter Games in recent years, draws attention to the need to consider a large number of factors that can influence the effectiveness of training in the mountain environment: the duration of training in the mountains (of at least two weeks), the altitude (of at least 1,800 m), the level of training of the athletes and their previous training experience in mountain conditions, the individual characteristics of the athlete, his age, the reserves for further adaptation, the period within the training macrocycle (Wehrlin et al., 2006).

1. Jogging training (eng. jogging = running) according to Drăgan, is a recreational or training activity in order to maintain a good physical condition, often used by climbers. This exercise has positive effects on the body's main systems: cardio-vascular, respiratory and neuro-muscular, leading to the improvement of general exercise capacity. At the same time, it contributes to the development of resistance, speed and skill, developing the athlete's

discipline and perseverance. It can be practiced regardless of age, health status, especially in nature, but also in specialized rooms.

Drăgan shows the health-promoting reasons for jogging:

- Improves lung function;
- improving the quality of life;
- stimulation of blood circulation;
- ensures oxygenation of the brain;
- strengthening the bone system;
- regulation of blood pressure;
- trains most of the body's muscle groups;
- fights obesity (Drăgan, 1980).

Jurek, a well-known ultra-marathoner, recommends running at an acceleration of 85-90 steps per minute with light, quick, short steps that will reduce the force of impact with the ground. Breathing in running is very important, preferably nasal, as much as possible abdominal, being the most effective over long distances (Jurek, 2012).



Figure 1. Jogging and mountain ultramarathon training

2. Stretching training aims to increase the elasticity of certain muscle structures and consists in the slow extension of a certain muscle, tendon or muscle group (maximum 5 seconds) and maintaining the position from 10 to 60 seconds, without special equipment, with beneficial effects on joint mobility and more:

- improved general physical performance of the body;
- reduced muscle tension and pain after exercise;
- reducing the risk of injury to joints, tendons and muscles;
- increasing the ability to learn complex movements.

It is recommended that stretching be preceded by a warm-up of the muscles, elongating and strengthening the muscle fibers and tendons, gradually increasing the muscle tone. It starts with light exercises, which do not suddenly demand the muscles, the muscle fibers stretching for a maximum of 30 seconds, followed by a total relaxation of the respective region.

For the development of joint mobility and muscle suppleness, we have the following 8 exercises as models:

### **1. Spinal twist lunge**

Technical description: from sitting with legs outstretched, the subject takes a big step forward with the left leg and the right leg outstretched back. The left arm rises to the ceiling and the gaze follows the left arm, with the right arm resting on the mat. Then repeat on the other side.

Muscle action: muscles of the upper limbs, trunk, back and lower limbs.

Dosage: contraction - 10 sec., relaxation - 2 sec., stretching - 15 sec.

Methodical indications: individually on the mattress.



Figure 2. Spinal twist lunge

### **2. Twisting the spine**

Technical description: from a sitting position with legs outstretched, the subject crosses the right leg over the left on the mat and places the right hand on the mat behind the body. Place the left elbow on the right knee and press the right foot with a twist of the torso to the right.

Muscle action: muscles of the upper limbs, trunk, back and lower limbs.

Dosage: contraction - 10 sec., relaxation - 2 sec., stretching - 15 sec.

Methodical indications: individually on the mattress.



Figure 3. Twisting the spine

### **3. Triceps Stretch**

Technical description: from kneeling, the subject bends the right elbow and pushes the right hand until it touches the upper back. With your left hand, grasp just below your right elbow and gently pull your right elbow down and toward your head. It is also performed with the other arm.

Muscle action: muscles of the neck, muscles of the upper limbs, trunk, back and lower limbs.

Dosage: contraction - 10 sec., relaxation - 2 sec., stretching - 15 sec.

Methodical indications: individually on the mattress.



Figure 4. Triceps Stretch

### **4. Leg stretch**

Technical description: from the lying position on back with legs outstretched, the subject crosses the left leg over the right, then lifts the right leg off the mat slowly pulling the leg towards the chest until an acceptable stretch is felt, maintaining that position. It is also performed with the other leg.

Muscle action: muscles of the upper limbs, trunk, back and lower limbs.

Dosage: contraction - 10 sec., relaxation - 2 sec., stretching - 15 sec.

Methodical indications: individually on the mattress.



Figure 5. Leg stretch

### **5. Stretch with the knee to the chest**

Technical description: the subject lies on his back with his legs extended, then pulls his right knee to his chest, keeping his left leg extended and his lower back pressed against the mat. Repeat with the other leg.

Muscle action: muscles of the upper limbs, trunk, back and lower limbs.  
Dosage: contraction - 10 sec., relaxation - 2 sec., stretching - 15 sec.  
Methodical indications: individually on the mattress.

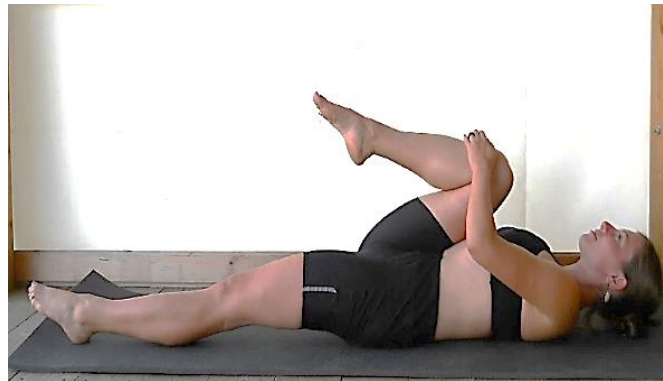


Figure 6. Stretch with the knee to the chest

### **6. Bagel position**

Technical description: from the side lying position with the head supported by the left arm, the subject bends the right knee up to the chest and places it on the mat, then bends the left knee back and grabs the left leg with the right hand. It is also executed on the other side.

Muscle action: muscles of the upper limbs, trunk, back and lower limbs.

Dosage: contraction - 10 sec., relaxation - 2 sec., stretching - 15 sec.

Methodical indications: individually on the mattress.



Figure 7. Bagel position

### **7. The quad stretch**

Technical description: from the position lying sideways on the left side, the subject remains with the left leg extended, and the right one bends backwards, pulling it with the hand towards the bottom. It is also performed on the right side.

Muscle action: muscles of the trunk and lower limbs.

Dosage: contraction - 10 sec., relaxation - 2 sec., stretching - 15 sec.



Methodical indications: individually on the mattress.



Figure 8. The quad stretch

### **8. Seated neck stretch**

Technical description: from the sitting position with the back straight, the subject brings the left ear to the left shoulder, pressing lightly on the head with the left hand. It is repeated on the other side.

Muscle action: neck muscles

Dosage: contraction - 10 sec., relaxation - 2 sec., stretching - 15 sec.

Methodical indications: individually on the mattress.

3. Swimming training strengthens the muscles and the nervous system, regulates heartbeat and breathing, increases energy metabolism, being a means used by climbers to adapt the body in two forms: short and long-term.

The short-term and unstable adaptation refers to changes in the major functions of training and performing certain exercises, it contains three phases:

- the immediate increase of major functions;
- the stable state of performing the specific effort (maintaining the functional activity for a constant time at a certain level);
- impaired steady state (when the appearance of fatigue leads to changes in the body due to functional needs).

Long-term and stable adaptation occurs due to repeated high-intensity efforts, resulting in hypertrophy and increased functionality of organs and systems, occurring in three phases:

- mobilization of body functions through training with short-term adaptations;
  - the planned increase in effort (through the hypertrophy of the organs involved in the training);
  - long-term stable adaptation, resulting in sufficient energy reserves for a high functional level.
- Sporting form can now be achieved through a balance between the regulating and executing organs.

Endurance races can be performed both in the pool and in lakes with still water, but also sprint races to increase muscle tension and respiratory amplitude. Swimming in cold waters can be useful for preparing and hardening the body for the low temperatures that can be encountered in mountainous areas or in difficult weather conditions.



4. Cycling training, specifically mountain biking according to Friel, is described as a systematic and methodical training method for increasing performance, without miraculous results obtained with "magic recipes".

The secret would be to choose the right time for high training, but not necessarily the best. Everyone who trains wants to get faster, even if they tire faster and more, so the muscles, cardiovascular and nervous systems also become very stressed. Consistent training is the path to high fitness and performance results.

One of the most important factors that the human organism needs - sleep, should not be neglected, despite several hours of training. Everybody needs seven or more hours of sleep, depending on the intensity and volume of training. Success comes with the athlete's ability and motivation for it, and mountain biking is a sport that can be practiced regardless of age, which brings health, good physical training and pleasant moments to climbers (Friel, 2000).

5. Climbing training, according to Anghel, is recommended to be complete in order to develop all the qualities (physical, mental, technical) necessary for the field through mutual complementation, training in particular:

- force;
- resistance and endurance;
- technique (Anghel, 2018).

The same author mentions the fact that climbing requires greater than usual demands on the arms and fingers, and the adaptation of the muscles is slower through a long training, the strength once acquired being preserved for a long time, there being three types:

- isometric force;
- isotonic force;
- dynamic force (Anghel, 2018).

In order for strength exercises to be effective, the following conditions must be met:

- the movements and positions of the exercises should be specific to climbing;
- muscle exhaustion under one minute during exercises;
- exercise repetitions should be performed at the highest possible intensity;
- choosing a specific position for grips with muscle exhaustion.

As strength training methods (apparatus), we can mention:

- Board with wooden rules (Gullich) – was invented by the German climber Wolfgang Gullich in 1988 and is a wooden structure with horizontally arranged rules, thick for the arms and thin for the fingers, on which dynamic movements are made without using the legs.
- The training panel - according to Anghel, it consists of an artificial structure of wooden panels, usually mounted indoors (hall), on which various sockets (artificial stones) are positioned and the climber climbs or descends according to the chosen difficulty, using hands and feet (Anghel, 2018).
- Training in hypergravity conditions – Anghel shows that it is a method of training on the board with an inclination of 50 degrees, and the climber weights himself with ballast, through intense demands with weights even higher than body weight (Anghel, 2018).

- The finger training board - according to Anghel, it is a wooden or fiberglass board with various holes or rulers, which can be mounted on the wall and is used for strength training for the fingers through various tractions or blocks (Anghel, 2018).

Anghel shows that depending on the type of training, the exercises set must be specific to the final objectives, in conditions as realistic as possible to the goals, namely, for technical routes, the exercises will be short and intense, and for long routes, endurance training on the mountain with an increase in the load and intensity of the exercises, repetitions, but also practicing in the most difficult and varied environmental conditions. The body will be under intense demand, which leads to its adaptation, becoming stronger, especially after the recovery of the body (rest). During training, special attention will be paid to the volume and intensity of the athlete's training, thus, as the volume of exercises decreases, their intensity will increase and vice versa in all three phases:

- general warming of the body;
- the actual training;
- the body's return (Anghel, 2018).

6. Training through mountain laps is the one that takes place in the mountain area, both in summer and in winter, especially in our country, where we have favorable conditions and close to those in the high mountains: heavy snow, temperatures of up to -30 degrees, winds that put a lot of pressure on you, the ice is suitable for training with ice axes and cornering. If we take into account the fact that the altitude of over 2,000 m is quickly reached, we understand why our mountains are chosen for the training necessary for the high altitudes, over 5,000 m. Then, after the necessary training, it is clearly possible to do external tours as well, at altitudes of over 3,000 m to perfect the alpine techniques needed in the high mountains.

Levine describes another method of training athletes by discontinuously using normobaric or hypobaric hypoxia, in reproducing altitude conditions of 2,500 m, in different dosages, with the aim of improving low-altitude (sed) performance, in two different ways:

- sufficient hypoxia to stimulate altitude acclimatization;
- sufficient hypoxia during exercise, which can stimulate training.

The high acclimatization effect is ascertained by the following facts:

- a high level of erythropoietin (EPO);
- improving sports performance;
- intensification of the training stimulus.

Combining 2,500m altitude acclimatization with low-altitude training ensures high-performance training (Levine, 2002).

## **Discussions**

Khodae shows that athletes perform intense physical activity at high altitude for various reasons and that training at altitude improves athletic performance for athletes. High altitude living, low altitude training may provide the best protocol for improving endurance performance in athletes. High altitude training is safe for athletes, but carries risks.

Individualized and appropriate acclimatization is an essential component of disease prevention (Khodaei et al).

Campo claims that training in hypoxia can increase muscle size and strength development. However, a consensus on its effects is not yet available. Although it improved muscle size and strength, this protocol did not provide significant benefits over resistance training in normoxia. However, it identified marked differences in implementation methodologies and warrants future research through standardized protocols (Campo et al., 2017).

According to Behrendt, intermittent hypoxia applied at rest or in combination with physical exercise brings multiple beneficial adaptations in terms of the performance and health of athletes. It has been hypothesized that replacing normoxia with moderate hyperoxia may increase the adaptive response to the intermittent hypoxic stimulus (Behrendt et al., 2022).

Millet shows that hypoxic sprint training leads to superior repeated sprint capacity (ie, faster mean times or higher power associated with better resistance to fatigue) under normoxic conditions, and when hypoxia is induced by voluntary volume hypoventilation low lung capacity may improve repeated sprint performance more than in normoxia (Millet et al., 2019).

Kasai designed a study to determine the effect of 5 consecutive days of sprint training under hypoxia on anaerobic performance and energy substances. He found that 5 consecutive days of training increased maximal strength in athletes. In addition, short-term sprint training significantly increased muscle glycogen content and polymerase chain reaction, with little additional benefit from hypoxic training (Kasai et al., 2017).

According to Bayer, intermittent hypoxic-hyperoxic training (AHHT) may complement a training method to improve cognitive function and exercise tolerance in elderly patients. IHHT was found to be easy to apply and well tolerated by patients up to 92 years of age, even when suffering from moderate dementia, and significantly contributed to improvements in cognitive performance and functional capacity (Bayer et al., 2017).

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## Reform in search of physical education systems in Transylvania

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### **Abstract**

*Romanian schools in Transylvania are an integral part of the European and national phenomenon, it is linked to the political, economic and social changes that took place in Transylvania in the 19th century. The union of a part of the Romanian Orthodox Church with the Catholic Church had positive consequences for the cultural development of Romanians.*

*A number of works in the last century have debated the important role of gymnastics in the complex education of students. A normal and beneficial development of the individual could not be achieved only with the intellectual and moral component. All the progressive ideas of some people who had come into contact with the pedagogy systems in vogue in European schools, often collided with the conservatism of Romanian society. For this reason, physical education will take a rather difficult and winding route until it takes its rightful place in the school curriculum.*

**Keywords:** *physical education, programs, school, gymnastics, students*

### **1. Introduction**

A number of works in the last century have debated the important role of gymnastics in the complex education of students. A normal and beneficial development of the individual could not be achieved only with the intellectual and moral composition. All the progressive ideas of some people who had come into contact with the pedagogy systems in vogue in European schools, often collided with the conservatism of Romanian society. For this reason, physical education will take a rather difficult and winding route until it takes its rightful place in the school curriculum.

After the revolution of 1848-1849, the innovative breath of modern ideas that encompass Europe is also felt in Transylvania. Among them is undoubtedly the penetration of physical education, gymnastics and sports games into ever wider masses, especially among students and pupils. Phenomenon of superstructure, spiritual life, culture includes the most diverse components, the most varied forms of manifestation. A leading place is occupied by the idea of forming a robust youth, healthy in mind and body with a high degree of culture. The realization of such an idea could be facilitated primarily by the mandatory introduction of physical education and gymnastics in schools and gymnasiums, the organization of sports games, competitions within meetings, societies, sports associations, having well-defined organizational forms with clearly defined goals.

From the research carried out, it results that the first knowledge about the systematic teaching of some notions of gymnastics in Romanian schools are those encountered in the Preparandia in Arad, elaborated by professor Ion Mișuț in 1830, in the pedagogy course entitled "Public research of pedagogy", where in chapter III, concepts of anatomy, physiology and anthropology are described. Hearing and practically practicing the elements of physical

education and gymnastics taught at the Preparandia courses in Arad, the several dozen annual graduates, then distributed as teachers in the Romanian schools of Transylvania and Banat, constituted as many foci of initiative in spreading the primary notions of physical education, gymnastics and organized games.

## **2. Methods**

The methods used in this work are: documentary study, theoretical and synthetic analysis of information. The theoretical documentation followed the identification and review of the state of knowledge in the field of school education, of its reorganization with the introduction of the Religious Reform. The main method used was the historical method as a method with a wide application character, having a double utility in that it is a particular method of empirical and analytical research.

## **3. Results and discussions**

### **3.1. The evolution of education and school programs**

At the beginning, in the school programs, there was always a footnote specifying that gymnastics would be done in the afternoon outside of class hours. Considered mostly a game, a "harmful pastime" or unimportant, physical education will have quite a long way to go before it is accepted. The works on the history of gymnastics in schools or the stages covered by the Saxon associations were generally presented by gymnasium sports teachers or people directly involved. We can mention here W. Teutschlander ("Zur Geschichte des Turnens im Siebenburger Sachsenlande", Kronstadte Gymnasial Program vom Schuljahre 1863/4) and Julius Unberath who provided a series of valuable information related to the practice of this discipline by the evangelical communities.

One of the coordinates of Romanian school education is the permanent link between the central European culture, as well as the possibility for young scholars to pursue their studies abroad, through scholarships offered by the church - we are thinking here of the so-called "Fundatio Fanyana" scholarship instituted by the cardinal Sigismund Kollonics, from which young Slovaks benefited to the full, or "Propaganda Fide" for Transylvanian Romanians. Only in the period 1754-1805 did 14 young people benefit from it.

A number of young people also studied in Vienna, only at the institutions "Pazmareum" and "Barbareum" we find 18 Romanians. The union with the Roman-Catholic Church opened the way for Romanians to the Romanian-Catholic gymnasiums in Transylvania. In parallel, Romanian schools were established in the areas of the border regiments (Năsăud, Banat, Făgăraș, etc.). The goal pursued by the intensification of schooling for Romanian children was to strengthen the political, administrative and religious role of all regions of Transylvania. In 1754, a school was founded in Blaj, on the initiative of bishop Inochentie Micu-Klein (1700-1768), who devised an action program for the Romanians to obtain political and national equality with the other nations of Transylvania.

For its part, the Orthodox Church is now increasingly active in organizing schools and seminaries to ensure the need for clergy for the Romanian population. The programs of these schools generally included studies of religion, history, geography, but also movement elements of the body.

After the revolution of 1848-49 in Transylvania, along with the remarkable progress made in the introduction of gymnastics in German and Hungarian schools and the establishment of the first sporting societies among them, the first Romanian attempts of this kind are also notable. Only 3-4 years after the revolution, in addition to the Romanian gymnasiums in Braşov and Sibiu, the so-called "gymnastics schools" are operating. And in a few more years, starting in 1861, the "Romanian Gymnastic and Canter Meeting" also operates in Braşov.

### **3.2. The evolution of education in German schools in Transylvania**

"Perhaps in no other nation in the world is the national existence so closely linked to the church and the school," said Stephan Ludwig Roth in one of his writings.

The organization of German schools in Transylvania was possible thanks to the privileges obtained from the Hungarian king Geysa II, who in the "Andreanum" of 1224 specified the freedom of newcomers (hospites) to choose their representatives of the Church. As a result, the practice of dividing the grounds of the parish house into two was instituted for schools. On the plot belonging to the school, of course, with modest means, a place was built that served as a school. Under these conditions, Heinz Brandsch's idea that "even the smallest villages had even a school before the Reformation does not seem accidental.

After the Reformation, Johannes Honterus personally saw to it that the humanities were especially taught in the schools, but he did not neglect the natural sciences either for the purpose of "ad commuren rerum publicarum utilitatem", that is for public use and further says "omne genus disciplinarum gratis docent", that is, any subject is taught for free. The students were constituted in their own organizations, the so-called "caietus" in which they practiced sports on the so-called "Mons Gymnasticus", a hill that usually belonged to the city and which was given to the students for physical exercises.

The Transylvanian Saxon School had two points from the beginning:

- it was founded by the community, which also chose its rector (Schulmeister), who, like the priest, was paid by the community;
- the school is under the supervision of the priest who also gave his consent to the election of the rector.

The Saxon schools had their autonomy ensured so that with the consent of the priest the school rector enjoyed all the advantages of the position, namely he did not pay tithes, nor taxes, did not participate in wars, he appointed the teachers, the cantor and the bell ringer of the school. As a result of this political and ecclesiastical independence at the beginning of the 16th century there are "almost everywhere in the communes the school". The introduction of the religious Reform brought with it the reorganization of school education and its generalization. Honterus motivated as follows: "the purpose of the school is to serve the general good, by preserving the ecclesiastical and Christian order but also to teach liberal and Christian arts".

The church, through the schools' statutes, had the task of regularly visiting the schools to see how the spiritual and physical education of the students was going. In the first part "Ordinatio Studii Coronensis" the regulations for teachers were established, the curriculum of the so-called "Studium Coronense".

In the regulations of the Brasov school led by the Transylvanian humanist and pedagogue Honterus, an important space was reserved for physical exercises: fencing, popicle, trânta, "cock shooting", archery competition in which the target was a live rooster.[5] An important place in Honterus' activity was the school's habits regarding the organization of excursions, "ad montes ire". Small excursions to St. Martin's Hill were scheduled every Monday in the summer. Once a year, in August, a big trip was organized on Postavaru, which in German is still called Schuller today. This mountain was the property of the school and the legend says that it was given to it by Negru-Vodă, Lord of the Wallachia.

#### **4. Conclusions**

The education of the Saxons experienced a significant development in the first years of the spread of the Reformation in Transylvania. In this direction, as mentioned in the presented article, the humanist Johannes Honterus stood out, who organized a higher level school in Braşov, called "Studium Cronensis". Following the model of the school in Braşov, Lutheran schools were opened in Sibiu - "Studium Cibirensis" in Bistriţa and in other cities inhabited by the German population.

The Romanesque school in Transylvania developed in close connection with the economic, social and cultural changes of the time. Concerns about the use of physical exercises were not absent even among some teachers from Romanian schools, as was mentioned in the material presented.

Gymnastics also began to develop in Romanian schools in the second half of the 19th century, thus we see a widening of trends in which other chains of education are also targeted, such as aesthetic and physical education, these being included in the education plans for public schools Greek-Catholic confessionals, where the place of physical education in schoolchildren's education is specified, along with intellectual, moral and practical education. Also specified are the factors that must be together with the specific means of physical education, such as hygiene, clean air and food. Along with these, it is also shown that gymnastics also has an influence on the physical development of students, contributing at the same time to their moral education, to developing attention, strengthening will, character, etc.

It is worth noting the positive thinking that the leaders of the Evangelical Church had, who in a short time created the "Saxon model", followed by the Romanian schools to create the conditions for the introduction and practice of physical education within school programs, the creation of the first sports societies and associations in the Transylvanian space.

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