

MENDIVE



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The development of the physical capacities of the Mechanics student from Physical Education

El desarrollo de las capacidades físicas del estudiante de Mecánica desde la Educación Física

O desenvolvimento das capacidades físicas do estudante de Mecânica desde a Educação Física

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ABSTRACT

In this article, a study was carried out on the need to improve the development of physical abilities in the students of the Mechanics career at the "Hermanos Saíz Montes de Oca" University of Pinar del

Río, the acquisition and physiological development that reaches the human being as he faces life, where his organism is physically adapting to the conditions of social development, from an early age and educated through the Physical Education class, which prepare the individual physically and mentally to face the challenges of life. The objective of this work is aimed at reflecting on the importance of the development of physical abilities from the Physical Education class in the students of the Mechanics career at the "Hermanos Saíz Montes de Oca" University of Pinar del Río during the 2018 course - 2019. The research has as a methodological basis the materialistic dialectical method, methods such as: document analysis, observation, interview and survey were used, which allowed determining its main contributions and limitations, as a basis for the proposal made. The proposed activities manifest the importance of the development of physical abilities and their importance for the development of personality and their health.

Keywords: development; physical abilities; physical education.

RESUMEN

En el presente artículo se realizó un estudio sobre la necesidad de mejorar el desarrollo de las capacidades físicas en los estudiantes de la carrera de Mecánica en la Universidad "Hermanos Saíz Montes de Oca" de Pinar del Río, la adquisición y desarrollo fisiológico que este alcanza a medida que se va enfrentado a la vida, donde su organismo se va adaptando físicamente a las condiciones de desarrollo social, desde edades tempranas y que se educan a través de la clase de Educación Física, las cuales preparan al individuo física y mentalmente para enfrentar los retos de la vida. El objetivo de este trabajo está encaminado a reflexionar sobre la importancia del desarrollo de las capacidades físicas desde la clase de

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Educación Física en los estudiantes de la carrera de Mecánica en la Universidad "Hermanos Saíz Montes de Oca" de Pinar del Río durante el curso 2018-2019. La investigación tiene como base metodológica el método dialéctico-materialista; se utilizaron métodos como: el análisis de documentos, la observación, la entrevista y la encuesta, lo que permitió determinar sus principales aportes y limitaciones, como base para la propuesta realizada. Las actividades que se proponen manifiestan la importancia del desarrollo de las capacidades físicas y su importancia para el desarrollo de la personalidad y su salud.

Palabras clave: desarrollo; capacidades físicas; educación física.

RESUMO

No presente artigo, foi feito um estudo sobre a necessidade de melhorar o desenvolvimento das capacidades físicas dos estudantes da carreira de Mecânica na Universidade "Hermanos Saíz Montes de Oca" em Pinar del Río, a aquisição e o desenvolvimento fisiológico que atingem ao enfrentarem a vida, onde o seu organismo está fisicamente adaptado às condições de desenvolvimento social, desde tenra idade e que são educados através da aula de Educação Física, que prepara o indivíduo física e mentalmente para enfrentar os desafios da vida. O objetivo deste trabalho é reflectir sobre a importância do desenvolvimento das capacidades físicas da classe de Educação Física nos estudantes da carreira de Mecânica na Universidade "Hermanos Saíz Montes de Oca" em Pinar del Río durante o ano académico de 2018-2019. A investigação tem como base metodológica o método dialéctico-materialista; foram utilizados métodos tais como: análise de documentos, observação, entrevista e inquérito, que permitiram determinar as suas principais contribuições e limitações, como base para a proposta feita. As atividades

propostas mostram a importância do desenvolvimento das capacidades físicas e a sua importância para o desenvolvimento da personalidade e da sua saúde.

Palavras-chave: desenvolvimento; capacidades físicas; educação física.

INTRODUCTION

Since the origins of humanity, physical exercise has been present in the entire evolutionary process and in sociocultural development.

Man's physical activity, which in its beginnings adopted forms of subsistence movement for gathering, hunting, fishing and conquering fire, became more and more coordinated; the hand, physical labor and language played a decisive role in its development as a means of fighting against other men.

In the fifteenth and sixteenth centuries an educational thought of physical exercise began to form, one of its most concrete expressions in the use, for the first time, by Locke (1693) in later English, of the term Physical Education.

The Physical Education in Cuba during the twentieth century had two very different periods of development: before 1959 and after 1959.

With the development of sport and the existing political will, the incorporation of the entire population to the systematic practice of Physical Education and sport is progressively achieved, especially of children, adolescents and young people in the school environment, through the adoption of a set of measures. In 1961 the National Institute of Sports Physical

Education and Recreation (INDER) is created and thus the foundation of the institutional and legal basis for organizing and promoting school sports, in which the Ministry of Education participates as an agency of the running state policies on sport, physical education and recreation in the schools.

School sport, as a term and daily practice, has a narrow sense and a broad sense. The first is associated with the characteristics of the sport that takes place in the physical space of the school and as a component and complement of the Physical Education classes.

This is part of the contents of the Physical Education programs and is practiced as an optional sport in extra-teaching hours. In the second, sports school cover all physical sport activity that is practiced in the context of the community (school centers is communal and sports areas, sports schools, facilities, etc.) for children and young people of school age, with a recreational or competitive participatory sense, both during and outside the school year. From this perspective, sports as a social-modern phenomenon have crossed the school wall and penetrated the entire social fabric.

Cuba has an educational system where the whole society can be considered a great school, considering sports as a right of all people.

In the school environment, several activities of Physical Education, Sports and Recreation have been implemented for the development of physical capacities that takes place inside and outside the school and that contributes powerfully to the integral development of students.

Both the teaching activity (class) and the extra-teaching activities (activities in nature, aerobic musical gymnastics and sports practice) and the extracurricular

activities (sports meetings between centers and official competitions during the university games that are held between the different faculties, which allow select the best talents for national college games). These respond to a planning internally related and articulated with the development of physical capacities, in such a way that it allows its realization in a specific stage of the school year.

The class is considered the most appropriate way to achieve educational objectives, because it provides the necessary conditions to fuse instruction and education into a single process.

The development of the physical capacities of the university student from the Physical Education classes is very important, since with it the improvement of the physical performance of our young people is achieved, towards the promotion of health; It also influences the formation of values and personality qualities, which implies the development of basic motor skills, vital, productive and sports skills, the economic and rational performance of movements, the capacity for performance in general and sports, the creation of hygienic habits, the optimal development of the moral and social qualities of the personality aimed at achieving a healthy and pleasant life.

The teaching of Physical Education must take into account and mainly value the motivational effect on students, therefore, without their enthusiasm; a good Physical Education class cannot be achieved.

Motivation in Physical Education classes is an element of vital importance to carry out activities of a physical-sporting nature.

For college students feel motivated on the active participation of physical education classes, the teacher of this discipline should be able to skillfully

guide the process of teaching - learning towards achieving the objectives of this, select the tracks, the procedures and the most appropriate ways to guide the students' work, so that physical capacities are developed.

To authors such as Masjuán (2004), Casimiro, Delgado and Cornelio (2014); Heijnen, Hommel, Kibele, Colzato, (2016), Jimenez and Montil (2016), Illescas and Alfaro (2017) proposes that these are present in all the activities man do from the physical point of view and the same are as old as the existence of man. In prehistoric times, man was forced to subsist in the environment that surrounded him based on his own efforts to feed himself; he was developing gardening, fishing, the harvesting of fruits and other physical activities to fend off their enemies and predators such as: running, throwing, jumping, climbing, swimming, etc. All these activities bring with them the development of physical capacities where strength predominates.

For other authors who have worked on this topic such as Abella (2016), Mirella (2016), Linares (2017); Matveev (2018), Campillo (2018), Cornejo (2018), Serantes, A; Barroso, E. L; Hernández, L (2018), Crespo, Armenteros & Puentes (2019), in the development of physical capacities not only force predominates but also the development of this has a high psychological component in the personality, which allows to perform with certain successes types of activities.

It was assumed in this article the classification of physical abilities, flexibility and resistance given by Linares (2017).

Taking into account the aforementioned, the objective of the article is proposed: to reflect on the importance of the development of physical capacities

from the Physical Education class in the students of the Mechanics career at the University "Hermanos Saíz Montes de Oca" in Pinar del Rio province

MATERIALS AND METHODS

The research was explanatory and took a dialectical approach. We worked with a population made up of 11 students from the Mechanics career at the University "Hermanos Saíz Montes de Oca" in Pinar del Río.

The dialectical - materialist method predominated, which made it possible to operate with its laws, categories and principles, methods such as document analysis, observation, interview and survey were used, which allowed determining its main contributions and limitations, as a basis for the proposal made; It is the realization of the documentary analysis taking into account the professional model for the specialty of Mechanics, an observation guide that allowed to give continuity in physical education classes was applied, and conducted an interview with teachers of Physical Education of the university and a survey was applied to the students of the Mechanics career

The methodological triangulation technique was also used to search and find the points of agreement in the results of the applied instruments. For the information processing, descriptive statistics techniques such as the calculation of the mode, the mean, were used.

RESULTS

The profession as a socio- cultural phenomenon has an implicit system of knowledge,

skills, habits and capacities, norms, values and attitudes that objectively belong to a career.

In every university career, even the most theoretical and abstract, a specific point of application must be found. The student must learn to use his hands, together with his mind, to analyze, criticize, detect problems, imagine solutions to real situations.

The need to train comprehensive teachers able to provide solutions to problems that contribute to and weigh the professional level of students is an observable appearance and Education Physics is part of this program; the theoretical- practical content received in classes becomes an activist for the professionalization of physical activity.

An initial exploratory study carried out to students of the mechanics career during the development of physical education classes allowed to determine, through document analysis, observation, interview and survey, a group of shortcomings: students perform sports practices but do not exploit physical capacities; they have not into account positions and guiding movements linked to professional skills, not muscle fundamental planes are determined that are necessary to strengthen through the development of conditional and coordinative physical capacities and involved in the development of professional skills and there is no individual work plan that allows to measure the training and development of physical capacities systematically.

What previous one led us to establish the importance of reflecting about the development of physical skills from physical education class of the students in the career of Mechanics at the University of Pinar de Rio "Hermanos Saíz Montes de Oca".

In the area of General Pedagogical Training, the students of the Mechanics career have as an object of study the most general foundations of the Technical and Professional Education (ETP) process, which is the "educational process that takes place under the conditions of the polytechnic school and the productive or service entity, for the training and improvement of a competent worker, preparing the future ETP teacher to face pedagogical work with a professional approach; that is, to fulfill the social mandate of creating the trainers of the country's qualified workforce.

The careers belonging to the Faculty of Technical Science, such as Mechanics, established in their curricula, among other modes of action, planning, implementation and monitoring of teaching strategies - promoting learning responsible behavior regarding the environment, energy saving, sexuality and physical and mental health, allowing them take decisions about their future life, in correspondence with the equity and social needs and the physical preparation required to keep the body healthy and willing to face the work in workshops and laboratories. It is through the development of physical capacities that this responsible behavior for the physical and mental health of future teachers can be achieved.

The physical abilities are nothing more than the physiological development reaching humans as it is confronted with life, where his body will physically adapt to the conditions of social development; These are formed from an early age and are educated through the Physical Education classes, which prepare the individual physically and mentally to face the challenges of life. Knowing how to use them makes them a tool of great importance for the benefit of

the health of the individual and those around him.

The development of physical capacities occupies a very important place in the development of the human being's personality, determining the physical condition of the individual. Indeed, every individual requires a certain physical efficiency in order to carry out their daily tasks.

In the development of the research, the theoretical level methods were used: historical - logical, systemic and modeling, with the support of document analysis techniques and analysis and synthesis and induction and deduction procedures.

The main contributions and limitations of models, systems and methodologies that precede the one proposed in the work were determined and, with the use of the systemic method and modeling, the system of exercises for the development of physical capacities from the Physical Education class was proposed, establishing its components and relationships between the different elements.

For the implementation of the system, the application of techniques is proposed, such as surveys and interviews with students, graduates and teachers, which will allow obtaining the necessary information to take action regarding its continuous improvement.

With the passing of time the physical capacities in man were becoming dependent on the activities carried out according to their purpose. In ancient times, Chinese civilization used it from the therapeutic point of view and for the improvement of health; Moreover, civilizations as Greek Romans used them to prepare men for the war and had to be strong and resilient for battle. It was not until the bright years of the Renaissance in Italy

16th century that the terminology of Physical Education began to be used and that its importance for improving health and as a way to increase work capacity of the human being began to be attributed to it with the development of physical capacities and basic motor skills.

Physical abilities today are viewed through two different positions.

1. Bourgeois Idealist Conception
2. Dialectical Materialistic conception

Bourgeois Idealist Conception

It suggests that abilities have a genetic and hereditary origin, determined by the genes emitted by their parents. Given its hereditary nature, it has a development limit that cannot be overcome by any educational process, emphasizing only the quantitative aspect of things.

Dialectical Materialistic Conception

It is assumed in research, where it is stated that the capabilities originate and develop in the activity and the activity acquired through life without denying biological factors and attitudes, no age limit, they are developed historically and socially, prioritizing the quantitative aspect. It takes into account a group of characteristics of physical capacities such as:

- They only exist in motion.
- They belong to the sphere of the executing regulation; determining how the activity is performed.
- Originate, train and develop the activity.
- They have no limits.
- They are determined by the historical - social.

- A close relationship is established with the skills and knowledge of the activity.

Relationship between abilities, skills, knowledge of the activity

Skill: dominion, by the individual, of the theoretical or practices actions that the activity is composed to achieve a goal.

Knowledge: action of knowing, understanding, intelligence, knowledge.

Activity: It the process of interaction of the individual with reality, responds to a need.

The relationship that exists between them can be seen through an example directly linked to the practice of physical exercises. An athlete, to develop the ability to run 100-m, must meet a number of essential knowledge, for example... How should be the start, where is aimed sight, How must be reciprocated of the arms, the support of the feet, rhythm and intensity with which the race should be developed, etc. Once developed the ability in the race this will be able to develop the capacity of rapidity; all this process is done during the activity.

Physical activities are present in all activities in which the man has to make a physical effort. In our country, the development of physical capacities is shown in three dimensions.

1. Physical education
2. Recreation
3. Sport

These three dimensions are fundamental components of physical culture and have been part of the cultural pedagogical revolution that is taking

place in our country, which has been aimed at developing the functional, biological and social capacity of the human being. It works directly with schools, educational institutions that, together with social influences, are responsible for the multi - lateral formation of our children and young people.

The development of capacities plays an important role, they are present in all physical exercises which constitute one of the most significant forms of human activity; It is where the physical and psychic characteristics of the personality are manifested and perfected closely related.

The relationship established between the development of skills and the overall health of students has shown that there is a direct dependence between increased capacity physical performance and capacity of the intellectual performance. By carrying out a more frequent weekly sports practice, students can bear a greater intellectual load, raise their academic performance and maintain their attention longer during the day.

In tests carried out with students who practice Physical Education and those who do not, it was shown that both in the classes and the social work of the youth organization, the young people who practiced sports in their free time were more dedicated, strong and willing to face risky situations.

The work with physical abilities in universities is shown in the Physical Education subject and participatory sport as a complementary capacity.

Physical Education in all universities is aimed at achieving an integral physical culture in students to improve their health and intellectual development, improving work capacity and physical

skills that will enable to get better results in the tests of physical efficiency.

For the work of physical capacities, let's see that they are divided into two large groups:

1. Conditional physical abilities.
2. Coordinating physical abilities.

There is another capacity called flexibility, which is seen as an independent capacity because it is present in all the movements that the human being makes.

Conditional physical abilities

The conditional capacities are determined by energy factors and are based on the process of obtaining and transmitting energy; within them are the velocity, the force, the strength and flexibility. This means that conditional physical capacities are linked to the possibility of carrying out a movement in the shortest amount of time possible, of overcoming resistance thanks to tension, of maintaining an effort over time or of reaching the maximum possible distance of a joint.

There is also interrelation between each of these capabilities, giving rise to new physical abilities, such as reaction time, speed of translation, tensile speed, maximum strength, rapid strength, tensile strength and resistance short, medium and long duration.

Coordinating physical capacities

The coordinative physical capabilities are characterized by the process control and direction of movement. They are interrelated with motor skills and only become effective in sports movement through their unity with conditional physical capacities; the reaction, The pace, the balance, the orientation, the a

daptation, the differentiation and the synchronization or coupling part of this kind of physical abilities.

Coordinating physical capacities are classified as:

General or basic

1. Movement regulation capabilities.
2. Ability to adapt to motor changes.

Specials

1. Orientation
2. Balance
3. Reaction
4. Rhythm
5. Anticipation
6. Differentiation
7. Coupling

Complex

1. Motor learning ability
2. Agility

Flexibility

It is the ability to have a great range of movements in the joints. It is not determined by energy factors, nor by the processes of regulation and direction of movements, it is dependent on the morphological and functional factors of the joints, elasticity of the muscles, cartilage and tendons.

Types of flexibility:

First, we must differences between:

1. **Static Flexibility:** the muscle elongation is maintained for some time.
2. **Dynamic Flexibility:** alternating stretching and shortening of the muscle, muscle elongation maintaining a short period of time (for example, joint mobility).
 - **Passive flexibility:** capacity stretching of a muscle or a joint motion by external forces (help of a partner).
 - **Active flexibility:** capacity stretching of a muscle or movement of a joint by contraction of the antagonist to which aims stretching (contracting isquitiobiales quadriceps to stretch, or kicked soccer or exercises of joint mobility).

Resistance as fundamental capacity

Once the classifications of physical capacities and their interrelationships have been seen, it is considered that the conditional physical capacity of resistance is the fundamental capacity due to the participation of various systems; it is present in one way or another in all physical activities and is essential for sports, be it recreational, competitive or health. It is a capacity that requires a large consumption of energy, which is mainly spent in the functioning of the cardiovascular and respiratory systems. Endurance is necessary for any activity that requires prolonged effort; its development is important, both for the individual's general performance capacity and for specific performance (school, work, military or sports).

For Physical Education, the most approached criteria are those related to the general objectives to train man in a multilateral way.

Resistance is of great importance in the human body because it provides a number of favorable changes as, for example:

- It causes an interaction between its organs and systems.
- Supports the heart and improves circulation.
- Detoxifies organs such as the liver and kidneys.
- Improves breathing.
- Supports metabolism.
- Increases the Systolic volume causing a send of a greater amount of blood to all parts of the body, depending on the needs.
- Decreased pulsations in a state of rest and during the development of physical activity.
- Prevention of some pathologies such as coronary heart disease, obesity and stress.

Resistance must begin from preschool age, constituting the most favorable moment for its development, the evolutionary impulse of puberty (12 to 14 years in the female sex and 14 to 17 years in the male sex).

The types of resistors are classified as:

Resistance from the point of view of objectives in:

1. **General.** Include basic exercises or development of other capabilities.
2. **Special: when** we work resistance work, which own participant groups and with the characteristics of the sport in question

Resistance from the point of view of participation of the muscular system in:

1. Partial: When it participates in activities less than one sixth or one seventh of the total musculature.

2. Total: When it participates in activities more than one - sixth or one - seventh of the total musculature.

Resistance from the point of view of the muscular energy used in each activity in:

1. Aerobic: The intensity of the movements is moderate and the needs of oxygen for muscle contraction are stocked in full.

2. Anaerobic: the activities are performed with a high intensity of effort and needs of oxygen are not supplied in full.

They can be classified, depending on the muscular work of the skeleton, into static, that is, from a single activity and dynamics when several activities are combined.

From the point of view of the duration of the exercise, they are classified as:

1. Short-term resistance: from 35 s to 2 min of work.

2. Medium duration resistance: from 2 s to 10 min of work.

3. Long-lasting resistance:

- from 10 s to 32 min of work.
- from 35 s to 90 min of work.
- from 90 s to 6 hours of work.
- More than 6 hours of work.

This determines that the duration of the exercises develops a capacity that is of vital importance and especially aerobic resistance.

The ideal way to develop aerobic endurance is by racing in its various forms of execution, such as:

- Resistance races without pauses.
- Racing with changes of pace.

Given the importance of the development of the physical capabilities in students of the mechanics career it was observed the behavior of a group of activities carried out during training (Table 1).

Table 1 - Results of the observation of the skills of the Mechanics career

Main positions	Guiding movement	Muscle groups	Necessary capabilities
Crouched down	Flexion and extension of the lower extremities.	Rectus femoris, biceps femoris, vastus lateralis and medialis, and calves.	Leg strength endurance.

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Inclined or standing	Flexion and extension of the trunk.	Rectus abdominal, external and internal oblique, psoas, dorsal iliac, long dorsal, serratus anterior and posterior.	Abdominal rapid strength, tensile strength back.
Varied arm operations	Pronation and supination of the upper extremities. Moving and lifting weights.	Biceps, triceps brachii, supinators and pronators, adductors and abductors	Rapid arm strength, arm strength endurance, coordination abilities, orientation, balance and reaction.

To achieve the development of physical capacities in the students of the Mechanics career, taking into account the activities that they carried out, a group of activities were drawn from the Physical Education class as:

- Teaching of the proper technique race (running economically).
- Correct heart rate.
- Formation of homogeneous groups.
- Detect functional anomalies.
- Establish work and recovery time.

General methods and exercises to build endurance were used.

Continuous:

- Uniforms: low, medium and high intensity.
- Variables: varied, Farktle, cross, country.

Discontinuous:

- Interval method: it is characterized by alternating phases of work and rest.
- Method of repetitions: A high intensity work repeated alternating with breaks almost complete recovery.

Exercises that allow developing resistance.

- Exercises with repetitions repeated: development of short, medium and long term resistance.
- The short-term race: from 35 s to 2 min. Of 400 m. at 1000 m.
- The medium duration race: from 2 to 10 min. Of 1500 m. at 3000 m.
- The Long-term race: more than 10 min. Of 3000 m., 5000 m., 10000 m., 10, 20, 50 km. And marathon.
- Long-term games like Basketball, Handball, and Soccer (without taking into account the goalkeeper).

In the preparation of these exercises, some specific professional activities developed by students of the Mechanics career were taken into account.

Example: filing

Action: Filing in an a horizontal plane

Operations

- Placement in front of the bank.
- Standing posture, legs spread.
- Placement of the arms.

- Movement rocking with hands resting on the ends of the file.

- Execute the swing with arms and legs that lead to the wear of the piece.

Muscular planes involved

- Arms: biceps, triceps, flexors and arm extensors.

- Hands: flexors and extensors of the fingers.

- Trunk: large rectum of the abdomen, pectorals.

- Legs: soleus, calves, tibias anterior, quadriceps, biceps femoris, buttocks.

Physical abilities in this activity: force, speed of movement, rhythm, agility and balance.

During Physical Education classes pulling exercises or games that develop execute this action with resemblance to this activity.

Evaluation of the development of capacities in Physical Education classes of the student of the Mechanics career

For the evaluation of the effectiveness of the development of the capacities of the Mechanics student, a group of actions were taken into account such as:

- Observation of activities of the specialty (adjustment workshop, lathe, milling machine, welding) in different contexts (school, production entities) to see the behavior from the workplace as physical capacities developed.

- Analysis of the behavior and evolution in physical education classes through records 1 ro and 2 do year, to

assess how each one of the students of the Mechanics career develop their physical abilities, comparing parameters in each stage; This will allow that when the students take the tests of physical efficiency at the end of the current school and will compare the facings obtained the beginning and the end will be a growth in the development of physical abilities, such as velocity reaction ,speed translation , resistance to speed, maximum force, fast force, resistance to force, as well as the resistance of short, medium, long duration .

DISCUSSION

As Linares (2017) expresses, having physical preparation indexes according to age and sex is a very important aspect for practicing physical-sporting activity, both at school and outside of it. Therefore, it is necessary to exercise our bodies through training and practice driving well structured in every one of the capabilities, obtaining learning about these aspects of human movement.

The work of the physical capacities will allow us as a result a good physical condition to carry out a physical activity; This is valid for:

- play a determined physical work
- Acquired a state of optimal health
- get into good physical condition

The Professor of Physical Education at the University must meet the needs, capacities and capabilities of their students in each specialty, taking into account the recovery breaks and progressions needed in the approach of physical exercises, how they affect certain types of exercises to the organism, which ones are applicable and which ones are not, at what ages they

can be applied; in short, to know the impact of physical activity on the student body.

It is consistent with Campillo (2018), and considering that the development of physical abilities contribute to the driving enrichment and to the harmonious development of the student by the previous work of the Fitness seeking modification of sedentary lifestyles that foster attitudes that lead our students to a full development of all their capacities (cognitive, motor, affective and social), inside and outside the school environment.

The authors took into account that the development of physical capacities in the students of the Mechanics career is generated not only to the students of the different specialties of the Faculty of Technical Sciences, but to all the faculties of the university, adapting it to the conditions context in which it will be applied.

The analyzes carried out in the present investigation allowed to conclude that the development of physical capacities in the students of the Mechanics career plays a very important role in the development of the personality of the students, and it will constitute a very important element to raise the work capacity, habits, knowledge, skills, attitudes. The improvement of their physical preparation will greatly improve their quality of life.

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Conflict of interest:

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