

# STUDY THE POSSIBILITY OF INCREASING THE CAPACITY OF SERVICE OF MINING GROUNDWATER BY IMPROVEMENT OF PHYSICAL STATE

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**ABSTRACT:** *In this research, we aimed to analyze the following aspects: the initial physical state of a group of 20 human operators; the performance of human operators individually and in groups; carrying out a program of activities driving health. Specifically, we investigated the following sub-themes: perception operators; human to sports; objectives and motivation of human operators to perform sports activities; ability to objective comparison with other similar groups; attitude towards their performance and attitude towards group performance; attitude towards the social environment linked to instructional objectives: positive, negative or indifferent.*

**KEY WORDS:** *Mining Service Groundwater, Physical State*

## 1. INTRODUCTION

In this research, we aimed to analyze the following aspects:

- The initial physical state of a group of 20 human operators.
  - The performance of human operators individually and in groups.
  - Carrying out a program of activities driving health
- Specifically, we investigated the following sub-themes:
- Perception operators
  - Human to sports.
  - Objectives and motivation of human operators to perform sports activities
  - Ability to objective comparison with other similar groups
  - Attitude towards their performance and attitude towards group performance
  - Attitude towards the social environment linked to instructional objectives: positive, negative or indifferent.

Research hypotheses are:

1. If there is the concept of physical activity in a group, then physical activity influences the performance at work (individual and group);
2. As group members appreciate their own performance at a high level, the more they appreciate the high level of group performance.

## 2. ARIA AND RESEARCH METHODOLOGY

### 2.1. Research area

Research feasibility study for increasing the capacity of service of underground mining by improving the physical condition consists of three stages: stage adaptation of the body to physical activity to improve fitness stage and stage personalize preparation and maintenance of fitness.

The subjects enrolled in this research are 20 human operators aged 25 and 40 years.

Step -I- which is to include gradual exercise weekly program will start after obtaining data on health status, of each subject, and its duration will be closely linked to the data, from 1-2 weeks 5-6 weeks. In persons with a weak physical activity or very poor, it is recommended that the course of the first phase must be easily accessible distance, since at this stage there is no question of intensity. Then, the distance and the speed will increase gradually (but not both at the same time, but alternatively) can travel until at least 3-4 times per week by the distance of 6-8 km in an alert step.

Step -II- starts at a threshold corresponding application in 3-4 sessions covering a distance of 6-8 km successive walking briskly and will contain a program with a higher application designed to improve the physical condition of the subjects. The method used most often is called interval training, very effective and sports. It consists of alternating periods of exercise with recovery after exercise. In our case, the periods will consist of jogging exercise and recovery periods will be achieved by walking together with breathing exercises and / or mobility. Running is a request otherwise, why be introduced gradually. In the first week running periods will mean 30-40% of exercise time, from a few tens of meters away running forward enough to ensure a return, so that the share to gradually change in favor of running, depending on age, sex and concrete manifestations after each workout. The distances traveled are longer in the running, the more we approach the end of this stage you feel when he finished the race covering a distance of 5km at a fast pace. The content of these two phases is similar and usually requires no special difficulties in completing it. Problems may arise either from sedentary living habits to be changed, or the desire to move quickly spotted these two steps and subjecting the body to stress too much compared to its physical training.

Step -III- primarily aims to maintain a high level of physical condition. This can be achieved through appropriate content expertise and the individual wishes of the most varied means: running, swimming, cycling, skiing, aerobics exercises.

Components work practice physical exercises are differentiated by the nature of the stresses to which the body is subjected. Eg expertise is achieved by intellectual effort, elements from other sides of education have a direct connection with the effort entirely physical. The other components (specific) energy levels involve mobilizing resources for filing a nervous type effort (attention, memory, imagination) and muscular. The effect of the request body by nervous and muscular effort is the fatigue that requires proper dosing and management effort.

The determining factor in the selection of this group was the level of performance that practical work, the performance of other groups and their colleagues evaluating this group as having poor performance.

The research was conducted at E. M. Uricani a group of miners.

## 2.2. Research Methodology

For a program to be effective and to avoid any risk inherent involved changing lifestyle (from sedentary to active) is required to follow certain rules and principles: 1 Perform an analysis of the health and lifestyle through a medical examination or investigation specialist cardiological knowledge followed by own investigations regarding body mass index, adiposity, physical activity index, previous motor experience and the drive area.

2 Adaptation program content based on material from each individual has to professional program (daily / weekly) and medical history.

3. Structurarea phased program with a sufficient duration for each step, so to make slow transitions based on the accumulation of the previous stage.

## 3. ANALYSIS AND INTERPRETATION

Exercise is a repeated motor act systematically and consciously to achieve the objectives of physical education and sport. The intention deliberately designed distinguishes it from other acts everyday driving .. is repeated systematically; influence both the biological sphere, but also the spirit; physical effort involves muscle contractions that are reflected in the work of the great features; underlying driving habits and skills training (not to be confused with them) .

Exercise content covers: body movement, exercise, exercise content can appreciate the effort psychic. Se parameters such as effort (volume, intensity, complexity).

Form of exercise is given on whether content elements: position, direction, amplitude ratio of segmental body, tempo, rhythm, etc..

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nervous type effort (attention, memory, imagination) and muscular. The effect of the request body by nervous and muscular effort is the fatigue that requires proper dosing and management effort.

Theory of physical activity and sport is to study the improvement of the physical and human driving ability by practice of physical exercises. The other disciplines studying the same issue, deepening it to a smaller area (athletics, gymnastics, basketball, etc.) All principles, concepts, theories and methodology standards of physical education and sport (in general) are valid for all theories.

Major concerns of this discipline aimed at physical education and sports among the younger generation, but also for other people who constitutes subsystems of the field.

We represent the intensity of communication considered as an indicator of the high level group. Universal culture as a set of material and spiritual values of society accumulated over time include physical education. This is considered a very complex social life that includes the results of thinking embodied in basic categories, specific terms, the regulatory framework, institutions, material, etc.

Physical culture is subordinated theoretical knowledge and practical procurement, and education as a fundamental process in the company. Physical education and sport supplements area culture of a people, favors widening human knowledge and allows registration of new values in the whole culture. Certain values are sporting performance, records, items, and technical processes. Fatigue is a measure of the body's defense mechanism that limits the intensity and volume of exercise. The intensity and volume of exercise can be maintained at a high level if the possibilities of adapting the body allow. Children and the elderly are advised to abstain from work for high volume and high intensity, whereas in adulthood it is even recommended.

Sports training is an educational process, systematically and continuously, gradually adjusting the human body to intense physical and mental effort in order to achieve high results in competitive practice one form of exercise; lab preparation is the talented to achieve superior performance in sport; contains fewer practitioners exercise than physical education; planning work has many aspects.

The content of communication is essential in dynamic social groups. Communication is a means to transmit values, norms, standards, needs, needs and at the same time, convey ways that meet individual and group goals.

Communication is inherent in undertaking cooperative activities. Cooperation is considered more an effect of group cohesion. Meanwhile, the cooperation can be an important factor in achieving performance.

In this research, we consider that performance is the result of activities performed to achieve a specific purpose. Performance can be analyzed both in correlation with the targets, and the corresponding results achieved by groups pursuing the same objectives. Comparison subjects performance target other groups of subjects can be an agent of change: a

review of (a Redice level of performance); a strategy for achieving the objectives. These two secondary objectives require the existence of cooperative relationships between subjects, cooperation is present, especially in a cohesive group.

Objectives can be set individually or in groups, and the performance can be analyzed individually or grouped. In this research, the term "good physical condition" does not refer to behavioral dimension, but to a range of skills and motor skills that reflect a specific performance.

To achieve the objectives and performance is necessary to perform certain activities. In rural sports, we talk mainly about learning activities: learning habits and driving new and upgrading their skills. Sports activities are important and necessary given that they cause individual and cultural progress of man. Sports activities are diverse and should be guided by the need to achieve harmonization of human needs that progress. Objectives can be set extrapersonal: they are ahead of us and are taxed equally to all. In some cases, there is awareness of the need to achieve these objectives (intellectual and cultural progress). The interdependence of these factors result in the formation of certain attitudes, positive or negative- to learning activities.

The theme of this research concerns the relationship between physical activity and performance of the group at work. Found that over three quarters of the human operators said that sports activities that have helped further practice and perform better at work. Sports activities is not a factor that differentiates, but a common aspect that determines rather close relationships, understanding.

#### 4. CONCLUSIONS

In this research, we aimed to analyze the following aspects:

- The group interpersonal and task cohesion;
- Individual and the group level sports performance ;
- Influence these two variables ;

In this final chapter, we try to discover if the assumptions that underlie this research are confirmed or refuted.

So first hypothesis- If the group has a high level of physical training, then it influences the performance at work (individual and group) was confirmed. Performance level was depicted as follows: subjects admitted they perform better at work. We believe that this group has a high level of cohesion in conditions where an important factor in enhancing positive interpersonal relationships it is the individual performance hence a complementary hypothesis: if the group has a similar individual performant level, then the group has an activity to high work. This cohesive set of values matched by species group as sporting activities are important, they have an impact on individual performance and group.

Second hypothesis - If the group has a high level of physical well-being when the group has a high level of performance based on tasks at work - was confirmed.

We found that in the group there are friendships that will not leave the group and do not want their peers to leave the group and communicate often. On the other hand, have made cooperation activities, even if they were largely binding. Membership in this group gives feelings of contentment and pride.

Third hypothesis - As subjects appreciate their own performance at a high level, the more they appreciate the high level of performance group - partly confirmed. We found that subjects' performance exceeds the standard set by them and believe they have good results at work. They believe that the working group has better outcomes than other groups who did not participate in the physical training program. We note here their tendency to overestimate and underestimate their own performance and the performance of peers.

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