

**EDU WORLD 2018**  
**The 8<sup>th</sup> International Conference**

**IMPROVING STUDENTS SELF-EVALUATION CAPACITY IN  
PHYSICAL EDUCATION LESSONS**

Oana Maria Ganciu (a)\*  
\*Corresponding author

(a) University of Bucharest, Department of Physical Education and Sport, Bucharest, Romania  
ganciuoana@yahoo.com,

*Abstract*

Among the most effective strategies used in physical education with students, we recall heuristic strategies, with emphasis on stimulating independent work. For the elaboration of the paper I used the following research methods: pedagogical documentation, experimental method, the statistical-mathematical method and the graphical representation method. The target group consists of 60 students from the 18 faculties of the University of Bucharest, selected from those who enrolled in aerobic gymnastics and who wanted to participate in the research. Chi square test for students' self-evaluation ability shows significant differences between the three categories of self-evaluation related to teacher evaluation. The significance threshold  $p = 0.015 < 0.05$  for  $\chi^2 = 8.40$  and two degrees of freedom ( $df = 2$ ). From table no 1. but also from the graph presented in Figure 01 50, we observe the differences between the frequencies related to the self-assessments of the students of the two groups, Experiment respectively Control. The superiority of the results obtained by the experimental group is also explained by the maintenance of the methodological measures taken or implemented in the training strategies: - applying the principles of differentiation and activity awareness, each subject was treated differently and he was aware of the shortcomings and individual tasks that had come to him. In each of these situations were established operational structures that were practiced systematically and in free time. The didactical strategies presented were designed and monitored in order to increase the quality of the educational act in Physical Education discipline.

© 2019 Published by Future Academy [www.FutureAcademy.org.UK](http://www.FutureAcademy.org.UK)

**Keywords:** Physical education, self-evaluation, students.



## 1. Introduction

Training, as a teaching process, should take into account the diversification of teaching, learning and evaluation methods, both at the cognitive level and at the students' level of activity.

In the process of learning and performing physical activities, which are taking place in physical education lessons and organized in non-formal activities, an increasing contribution is made to the active methods. One of these methods is the differential treatment

A good teacher needs to adopt innovative strategies to develop new ways of approaching training or finding new ways of organizing training methodologies, experimenting new methods and procedures (Ionescu, 2000).

Among the most effective strategies used in physical education with students, we recall heuristic strategies, with emphasis on stimulating independent work.

Effective didactic strategies are identified and used in research to increase physical activity, during the period of study to develop the practice of practicing physical exercise throughout the life.

## 2. Problem Statement

In higher education aerobics is an effective form of optimization of the lessons conducted with students; a mean with multiple valences on the body.

Aerobic gymnastics is part of the grand family of gymnastics and addresses the broad masses of people who love the movement, want to improve their physical condition and maintain their health.

Aerobic gymnastics is part of the grand family of gymnastics and addresses the broad masses of people who love the movement, want to improve their physical condition and maintain their health (Ganciu, 2009).

Aerobics is the activity that uses the same muscle group, rhythmically, for a period of 15-20minutes or more, maintaining 60-80% of maximum heart rate rate their (Balbach, 2001). All requests that exceed 2-5 minutes and whose intensity allows oxygen supply are considered aerobic efforts (Bota, 2002).

Cooper (1982) considers that the most popular type of aerobic exercises are walking, jogging, swimming and dance aerobics.

To be truly aerobic program must fulfill three important conditions: to be continuous, to be strong, to grow and to keep the heart rate of those who practice in the best effort (Lance, 1988).

The means used in the aerobic gymnastics programs will be selected in accordance with the proposed central objective: optimizing the movement capacity of the locomotor apparatus and improving the physical condition (Manos, 2007, p31).

The content of exercises includes a wide range of movements from the content of gymnastics and dance, organized in complex ensembles of structures that present a unitary form (Dobrescu, 2008).

In higher education aerobics is an effective form of optimization of the lessons conducted with students; a mean with multiple valences on the body.

Stoica (2004) believes that aerobics teaching in physical education lessons in higher education is agreed by students.

Aerobics, dynamics physical activities, with the use of many muscle groups (swimming, tennis, gymnastics, jogging) performed regularly are also more preferred instead of those statics, isometric")

We consider that the subjects of the studied sample cooperate and participate voluntarily in the experiment.

The presence of aerobic gymnastics in physical education lessons leads to its growth of density and intensity and also develops motor skills through a variety of means used (Grosu, 2012).

### **3. Research Questions**

We started from the idea that the active teaching methods aim at adapting the activity, in terms of organizational forms and didactic methodology to its own possibilities, when the ability to understand, the interest in movement and the pace of work and learning are different.

In modern didactics, the teaching-learning report, teacher-educated relationship gain new dimensions. On the one hand, the teacher strives to find new effective teaching strategies, and on the other hand, the educated (the student) is encouraged to actively participate in his / her becoming.

We consider that the subjects of the studied sample are cooperating and participate voluntarily in the experiment.

Motivation acts as a dynamic factor of self-improvement.

Effective didactic strategies are identified and used in research to increase physical activity during the period of study for the formation of the practice of practicing the lifelong exercise.

### **4. Purpose of the Study**

The purpose of the research was to apply active teaching methods, focusing on the individualisation of training programs and on stimulating independent student work to improve self-evaluation capacity.

In order to carry out the research, the following hypothesis was made:

Individuals 'practice of individualized programs to allow for continuous self- knowledge of the way of execution and the possibilities for progress will lead to the improvement of students' self-evaluation capacity.

### **5. Research Methods**

For the elaboration of the paper I used the following research methods: (Tudor, 2005)

- Pedagogical documentation;
- Experimental method. The experiment is ameliorative, because it aims at increasing the efficiency of the instructive-educational process.
- The statistical-mathematical method. The data obtained from the control samples were analyzed and interpreted using this method.
- The graphical representation method allowed me to express the processed data and the resulting findings.

We used graphical representations and ways of analyzing research results.

The subjects participated in this experiment on a voluntary basis and explained the subject of the experiment in advance.

The target group consists of 60 students from the 18 faculties of the University of Bucharest, selected from those who enrolled in aerobic gymnastics and who wanted to participate in the research.

Of the 60 students, included in our study, a total of 30 students consisted of the experimental group who participated in 2 hours of physical education per week and an individual physical activity program, carried out as an independent activity.

To determine the efficiency of the differentiated activity carried out with the experimental group we used a control group, (N = 30) who preferred the frontal activity within the core course.

What attributed the two groups was the system of organizing lessons: frontal activity in the control group and individualized in the experimental group.

The composition of the groups was made by facultative adherence, the students were presented with the idea of differentiated activity.

The experiment used was of the ameliorative-formative type intended to verify the working hypothesis and highlighted the progress differences of the experimental group (E) to the control group (C), by different application of the training programs.

The proposed sample battery is directly related to the operational objectives.

Through these control samples we will perform the assessment that will provide us with the concrete data on the quality and effectiveness of the applied strategies.

The test for self-assessment ability of students consists of presenting a complex of aerobic exercises, consisting of 64 music tracks.

The pedagogical experiment was carried out at the sports base of the University of Bucharest and lasted for a university year (October 2015 - May 2016), and the training program of the two groups took place in a differentiated way.

The study was conducted over a period of 8 months, divided into three stages:

1. Initial stage (1-15.X.2015) - initial testing of the tests.
2. Fundamental stage (15 X-15.V.2016) - application of the training program.
3. Final stage (16-20.V.2016) - final check of the tests.

## 6. Findings

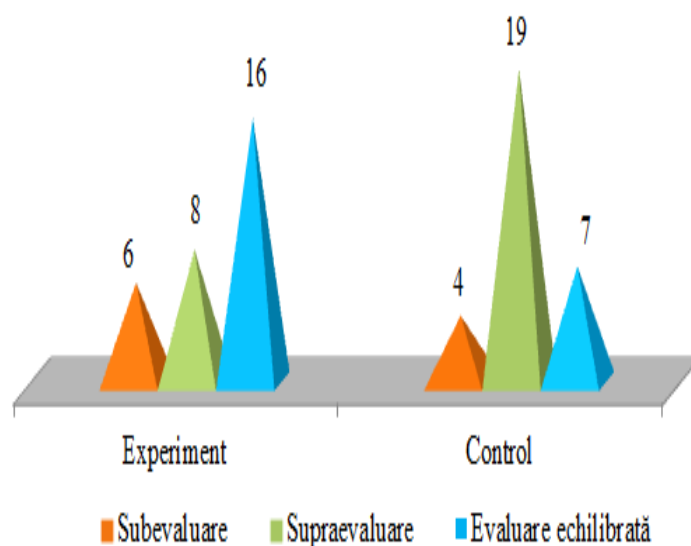
Comparative analysis of student self-evaluation results (experimental group - control group), final testing. The results regarding students' self-evaluation capacity are presented in table no 1. and 2.

**Table 01.** The results regarding students' self-evaluation capacity

| Nr . crt                | GROUP      | Self evaluation         | SELF EVALUATION |               |                     | TOTAL per group |
|-------------------------|------------|-------------------------|-----------------|---------------|---------------------|-----------------|
|                         |            |                         | Subevaluation   | Overvaluation | Balanced evaluation |                 |
| 1                       | Experiment | Observed (registred)    | 6               | 8             | 16                  | 30              |
|                         |            | Theoretical             | 5.00            | 13.50         | 11.50               | 30.00           |
|                         |            | Chi square Contribution | 0.20            | 2.24          | 1.76                | 4.20            |
|                         |            | %                       | 20%             | 27%           | 53%                 | 100%            |
| 2                       | Control    | Observed (registred)    | 4               | 19            | 7                   | 30              |
|                         |            | Theoretical             | 5.00            | 13.50         | 11.50               | 30.00           |
|                         |            | Chi square Contribution | 0.20            | 2.24          | 1.76                | 4.20            |
|                         |            | %                       | 13%             | 63%           | 23%                 | 100%            |
| TOTALregistred answears |            |                         | 10              | 27            | 23                  | 60              |

**Table 02.** Results test

| Parameters              | Sums  |
|-------------------------|-------|
| Chi square ( $\chi^2$ ) | 8.40  |
| df                      | 2     |
| P                       | 0.015 |



**Figure 01.** Students self-evaluation capacity

Chi square test for students' self-evaluation ability shows significant differences between the three categories of self-evaluation related to teacher evaluation. The significance threshold  $p = 0.015 < 0.05$  for  $\chi^2 = 8.40$  and two degrees of freedom ( $df = 2$ ). From table no. 2 but also from the graph presented in Figure 50, we observe the differences between the frequencies related to the self-assessments of the students of the two groups, Experiment respectively Control (Figure 01)

From both the statistics and the graphic representations we can see the following aspects regarding the self-evaluation capacity:

An important role in achieving superior results by the experimental group was the application of the principles of differentiation and activity awareness. In this sense, each subject was aware of the motric deficiencies that it has, the aims and the goals that it has to accomplish, according to which have been established operational structures (systems of exercises and methods) which have been practiced systematically in their spare time.

Among the formative participatory methods involved in the applied instructional strategies, a significant role was played by learning through projects, "learning to do" and "role-play." In this sense, project training involved the designing of individual training programs that would solve autotelic operational objectives, stimulate creativity and apply theoretical knowledge - a methodology specifically used for this purpose.

## 7. Conclusion

The conclusions drawn from the experiment are closely related to the hypothesis that is subject to practical checks.

Research results confirmed the hypothesis formulated at the beginning of the experiment.

The superiority of the results obtained by the experimental group is also explained by the maintenance of the methodological measures taken or implemented in the training strategies: - applying the principles of differentiation and activity awareness, each subject was treated differently and he was aware of the shortcomings and individual tasks that had come to him. In each of these situations were established operational structures that were practiced systematically and in free time;

-Appropriate application of participatory-formative methods. These methods have also had collateral effects such as: increasing interest in understanding the phenomena, acquiring methodological skills, stimulating individual and group creativity.

Through these methodological measures we can say that the most pedagogical and psychological valences that are targeted by our research purpose have been exploited or increased.

The didactical strategies presented were designed and monitored in order to increase the quality of the educational act in Physical Education discipline.

## References

- Balbach, L. (2001). *What is aerobics exercise and What should I do*. New-York: Sounders College Publishing.
- Bota, C. (2002). *Fiziologie generală. Aplicații la efortul fizic*. [General physiology]. Applications to physical effort] București: Medicală.
- Cooper, K., (1982). *The Aerobics Program For Total Well-Being*. Inc. New-York: M Evans and Company.
- Dobrescu, T. (2008). *Gimnastica aerobica. Strategii pentru optimizarea fitnessului* [Aerobics. Strategies for fitness optimization]. Iași: Pim.
- Ganciu, M. (2009). *Gimnastica aerobică de întreținere* [Aerobic Gymnastics Maintenance]. București: Universității din București.
- Grosu, E.F. (2012). *Gimnastica aerobica* [Aerobics]. Cluj Napoca: GMI.
- Ionescu, M. (2000). *Demersuri creative în predare și învățare* [Creative approaches to teaching and learning]. Cluj Napoca: Presa Univesitară Clujeană.
- Lance, K., (1988). *Low impact aerobics*. New- York: Crown Publishers.
- Manos, M. (2007). *Programme pentru optimizarea condiției fizice* [Program for optimizing physical condition]. Didactică și Pedagogică, București.
- Stoica, A. (2004). *Gimnastică aerobică. Fundamente teoretice și practico-metodice* [Aerobics. Theoretical and practical-methodological foundations]. București: Bren.
- Tudor, V. (2005). *Măsurare și evaluare în cultură fizică și sport* [Measurement and evaluation in physical culture and sports]. București: Alpha.