

AWARENESS OF THE EVALUATION ROLE AND IMPORTANCE TO HIGH SCHOOL PUPILS – A FACTOR INCREASING THE PHYSICAL EDUCATION LESSON EFFICIENCY

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Abstract: *This paper treats about evaluation, as a component of the teaching act, that helps the educator to objectively determine the quality of his approach, by studying its effects upon the pupils, during and by the end of each thematic component. Thus, evaluation becomes a regulating factor of the teaching-learning process, by requiring teacher's and pupils' permanent adjustments.*

The aim of this research is to create a conceptual framework for the presented topics, by identifying and validating some theoretical and educational-formative coordinates that could be used as landmarks for the elaboration of an evaluation system which meet the present and future exigencies, both from the inside and the outside of the system.

Key-words: *evaluation, awareness, physical education lesson, high school level.*

1. Introduction

Together with the other sides of education, physical education is an activity indissolubly related to the young generation's training. Physical education, organically integrated into the pupils' instructive-educative process, is meant to participate in the growth and development of a physically and psychically healthy generation, able to cope with the society exigencies.

Evaluation is a component of the didactic approach, allowing the teacher to

objectively determine its effects on the pupils along the initiated didactic process, in the course of each thematic component and after each one is completed. In any instructive-educative process based on well-defined objectives, evaluation represents a fundamental element.

The awareness of the evaluation role and importance to high school pupils turns evaluation into a regulatory factor of the teaching-learning process, by permanently imposing new adjustments to both the teacher and the pupils. The achievement level of the objectives set up in the

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beginning of the activity can be determined only by means of the evaluation. We can thus prevent the retards and we can also modify the designed strategy, by identifying the causes and then establishing the necessary steps.

The present paper is circumscribed in the sphere of the researches meant to improve the evaluation process, because it aims at creating a conceptual framework through the identification and validation, according to the possibilities, of some theoretical and educative-formative coordinates which could be used as reference points for the construction of an evaluation system able to meet both the existing and the future exigencies, equally within and outside the system. By becoming aware of the evaluation role and importance to high school pupils, we understood the necessity to approach the relationship between the physical education lesson efficientisation and the evaluation importance, for the deep knowledge of this relation and for the optimization of any teacher's activity.

“Evaluation is an operation meant to collect information in order to make some decisions that aim at improving the activity and at highlighting the functions it exerts on the different moments of the action. Evaluation orients the teaching act and supports its systematic adjustment, but it also guides and stimulates the learning activity, by rendering both of them more efficient” [17].

When the control tests are measurable, as results, evaluation requires the examiner to make just a little effort, particularly if norms or scales are available and if it is objective. When the results are not measurable, for instance in the technical and tactical performances, evaluation may sometimes have unpredictable consequences and negative repercussions on the tested subjects' psychic condition, on their personality under construction.

1.1. Evaluation particularities in high school education

Evaluation in school physical education is a component part of the subsystem “young generation's physical education”, which is the physical education most important subsystem including subjects aged 6-7 years old up to 18-19 years old. It is also a tool through which we can measure and evaluate the quality of the physical education process developed in schools.

Evaluation is meant to determine if the system accomplishes its functions or not, namely if it fulfills its objectives.

2. Material and methods

2.1. Purpose of the research

Our study was focused on the physical education lesson efficientisation through the awareness of the evaluation role and importance to high school pupils. This category of subjects (both boys and girls) provided us the data necessary to our research.

2.2. Hypotheses of the research

1. If during a school year we also use, for the experimental groups, besides the pupils' evaluation by the teacher, self-evaluation and pupils' evaluation by the group, and if after each evaluation we analyze the results and we act consequently by modifying the training program, then pupils' performances in each trial will be improved.

2. Through self-evaluation and pupils' evaluation by the group, they will become more aware of the instructive-educative process in physical education and we shall notice that their participation will be more active by far.

2.3. General framework of the research

The experiment was conducted on pupils from “Ștefan Odobleja” Theoretical High School, “Ion Barbu” Theoretical High School, “Henri Coandă” Aeronautical School Group and “Media” Technical College, all of them located in Bucharest. We used one group of pupils from each of the grades 9th, 10th, 11th and 12th, as experimental groups, and one group of pupils from each of the grades 9th, 10th, 11th and 12th, as control groups. The experiment took place over many school years, respectively between 2005 and 2010, and it was focused on five control tests.

2.4. Content of the research

During the experiment, the groups developed their activity according to the same schedule, based on similar instruction contents, under the guidance of the teachers Pislaru Vera, Vencu Mihail, Rizea Nelu, Nedelcu Laura and Niță Mirabela.

All the groups were initially tested for each of the following trials: gymnastics, supported jump, basketball - technical-tactical structure, basketball - shot to basket from dribble and athletics, with pupils' evaluation by the teacher, self-evaluation and pupils' evaluation by the group.

By the end of each system of lessons approaching one of the prescribed trials, a final testing was also administered, accompanied by the three previously mentioned evaluations, and the results were recorded on the setup sheet.

After each initial testing, the results obtained by the experimental groups were analyzed and processed, and their interpretation was stated to the pupils. Discussions were focused on the evaluation criteria, but also on pupils' results, in order to let them know about

their current level and also to stimulate them to improve their performances.

The control groups were equally submitted to an initial testing and a final testing for each of the specified trials, but without analyzing and interpreting their results in the initial testing.

The experiment was carried out over many school years, which allowed us to echelon, along the semesters, the initial and final testing dates, so that they corresponded to the planned schedule for the respective trials.

Generally, tests were administered as follows: in the beginning of the 1st semester - take-off long jump, in the period from November to December - a system of lessons for the supported jump, in the beginning of the 2nd semester - acrobatic gymnastics, in the period from April to June - a system of lessons for the basketball game.

3. Results and discussions

3.1. Analysis and interpretation of the results

The most important part of this experiment is the analysis and interpretation of the testing results. It aims at emphasizing the awareness of the evaluation role and importance to high school pupils, namely their understanding of the grading system in physical education classes. The obtained results were tabulated (approximately 100 tables).

The statistical-mathematical methods used by us highlight an increased correlation between the marks obtained from pupils' self-evaluation and pupils' evaluation by the teacher, but also an improvement of their performances in all the trials.

For the analysis and interpretation of the results, we applied Pearson's coefficient of correlation (r) in three ways. The general formula is:

$$r = \frac{\sum ((X - X_{med}) * (Y - Y_{med}))}{(n - 1) * S_x * S_y} \quad (1)$$

To calculate r_1 , we successively replaced the variable X with the marks awarded by the teacher, while the variable Y represents the marks on the table diagonal, namely the marks each pupil thought he deserved.

To calculate r_2 , we successively replaced the variable X with the marks awarded by the teacher, as we did in the case of r_1 , but this time the variable Y represents the mean awarded by the other pupils.

To calculate r_3 , we successively replaced the variable X with each column of the table, namely with the marks awarded by the group to the same pupil, while the variable Y used the values of the marks on the diagonal line, as in the case of r_1 .

In order to obtain Pearson's final coefficient of correlation, we calculated the mean of the 3 r 's ($r = (r_1 + r_2 + r_3) / 3$).

As we can notice, the above formula also contains another statistical coefficient called "standard deviation" (marked S_x and S_y). Standard deviation is the most efficient statistical coefficient to determine a group's degree of homogeneity; it represents the variant square root (S^2).

The used formula is:

$$\sqrt{\frac{\sum f * x^2 - (\sum f x)^2 / n}{n - 1}} \quad (1)$$

where f is the frequency.

The variable X was replaced with the marks awarded by the teacher and the variable Y with the marks awarded by the pupils to their peers. In order to calculate the two statistical coefficients, we need the frequencies of the marks awarded by both the teacher and the pupils.

3.1.1. Analysis and interpretation of the results in the initial testing

The initial tests showed a poor correlation between the marks awarded by the teacher and those awarded by the group and individually.

The coefficient of correlation values after the initial testing correspond to the standard used for the poor correlation level. This is due to the fact that pupils are not used to the exigency level in grades 9th and 10th, but also to the fact that pupils have a tendency, on their first repetitions, to overvalue themselves and undervalue their peers. In the initial stage, we find many poor marks, which also indicate that, besides the previously mentioned tendency to undervalue their peers, pupils don't know the applied grading system - that must respect each individual performance, consequently they give poor marks to their peers, according to personal criteria or to criteria "borrowed" from their peers.

3.1.2. Analysis and interpretation of the results in the final testing

The final tests showed pupils' high degree of understanding the mechanisms that must be respected to successfully perform an exercise, but also the correct evaluation of their peers' evolution. The correlation between the marks awarded by the teacher and those awarded by the pupils increased in the control groups, but to a small extent, the coefficients of correlation having a mean value, while in the experimental groups it increased significantly, due to the awareness of the evaluation role and importance, the coefficients of correlation in the five trials corresponding to the standard for the top correlation level. It results that the experimental groups have reached, in this phase, a high improvement level when applying to their performances the

knowledge accumulated for a good evolution and a fair grading of their peers' evolution, while the control groups, in this phase, have hardly started understanding the mechanisms of a correct evolution and of a fair evaluation.

4. Conclusions and recommendations

1. Through the pupils' active participation in the physical education lesson, which supposes a continuing evaluation and self-evaluation, they become more and more involved in the activity, they manage to solidly learn the exercise performing mechanisms, they are aware of their faults and they quickly correct themselves.

2. The experiment results show that, in the initial testing, there is a poor correlation in all the five trials performed by the experimental groups and that, in the final testing, they have reached a very high correlation level. This proves that the discussions and the analysis of the results after the initial testing, by approaching each trial, help very much the pupils to build their evaluation and self-evaluation skills, by becoming thus more aware of the activity performed within the physical education classes, to easily correct themselves, to better identify the execution faults - from the gross to the finest ones.

3. In the control groups, the registered indices don't succeed in going beyond the mean correlation level in all the five trials included in the experiment, which demonstrates that these groups are not able to correctly build their evaluation and self-evaluation skills, because they are not aware of the evaluation and self-evaluation role and importance in the physical education lesson.

4. Following this experiment, we found out that, by interactively participating in the lesson, pupils acquire, in the course of time, an excellent capacity to evaluate

themselves and to evaluate their peers, they develop their critical and self-critical spirit, they are more interested in the lesson, they are more aware of what they are to do, they gradually correct their faults and their efficiency during the physical education lesson augments.

5. This experiment proves the efficiency of pupils' awareness of the evaluation role and importance. Consequently, we recommend all the physical education teachers, and not only, to also use, when evaluating, pupils' evaluation and self-evaluation, in order to optimize their efficiency, to stimulate them to consciously participate in the lesson and to easily achieve many objectives aimed by the teacher in his didactic activity.

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