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CONSTATATIVE STUDY ON THE ASSESSMENT IN THE PHYSICAL EDUCATION DISCIPLINE IN THE SECONDARY EDUCATION CYCLE

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Abstract: *We appreciate that the problem of assessment in the education system is addressed in many specialized studies. Following the analysis of the instructional-educational process and the assessment system in the physical education discipline of the secondary education, in the present study, it was started from the idea that in the success of the students of the primary education cycle, the weight of the personal performances prevails, followed and aided by other evaluation criteria. The purpose of the paper was to establish to what extent the success of the physical education discipline is based on a concrete system of the personal performance of the students.*

Key words: *assessment, physical education, personal performance.*

1. Introduction

The relatively actual definitions of the evolutionary school act are very diverse. But they have many things in common. From the multitude of variants of the definitions we chose the variant: "To evaluate means to issue value judgments regarding the learning by the student, based on objective and non-subjective criteria of the objectives consolidated after learning and setting, before some decisions", based to which we focused the following steps [1], [3].

At the international level, the issue of physical education instruction is more frequently approached and from many more perspectives that highlight the special interest for adapting the educational path to the developmental characteristics of each student. We also note an explicit interest in the problem of connecting instruction with a qualitative evaluation [2].

2. Materials and Methods

The curriculum reform in the Romanian education determined the reorganization

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of the entire educational approach by applying, within the course lessons, some active-participative methods that would enhance the student in all forms of his or her existence. If the old school curriculum was based on achievement the objectives, the new curriculum aims at a curricular design model focused on competencies.

Following the analysis of the instructional-educational process and the evaluation system in the discipline of physical education of the lower secondary education, in the present study, it was started from the idea that in the success of the students of the secondary education cycle, the personal performances predominates followed and aided by other evaluation criteria.

The methods used to achieve the research objectives are the following:

- the study of the specialized literature;
- comparative method;
- the method of pedagogical experiment and case study;
- the method of pedagogical observation;
- statistical-mathematical methods of data processing and interpretation;
- the method of graphical analysis of the research results;
- test method.

4. Results and Discussions

The research was conducted during the physical education classes, from September, 2015 to June, 2018.

The sample of subjects consists of students from the same school - ''H.P. Bengescu Technological High School'', from the 7th and 8th grades in the rural area. The results were recorded during three school years: 2015-2016; 2016-2017; 2017-2018.

The classes included in the study show a permanent desire for movement, for competition, a large part of them participating in competitions at the school level, county level and national level.

5. The Tests Applied to the Subjects in the Research

Following the initial and final tests, data were collected for four control events, representative for the high school cycle:

- 50 m speed running on foot starting;
- 600 m. run for girls, 1000 m. run for boys;
- throwing of the waffle ball;
- standing broad jump.

The results were centralized and statistically analyzed in order to create an accurate picture on the level of progress made by the students in these tests.

The statistical analysis had as subject of study the evolution of the performances achieved by each class of students.

In the table no. 1 are presented the data analyzed statistically for the 7th grade classes of girls.

By analyzing the table no. 1, the 7th grade classes had, at the beginning of the research, close results, as performance, these being framed in the physical possibilities of the students at this age.

The results recorded for the girls in the two tests were as follows:

- at running speed, 50 m (I.T. = 9.6 sec. and F.T. = 9.4 sec.);
- at the training run (I.T. = 3.35 min and F.T. = 2.27 min);
- when throwing the waffle ball (I.T. = 20.6 m. and F.T. = 22.4 m.);
- at the standing broad jump (I.T. = 131 cm and F.T. = 146 cm).
- The results of the boys in the tests were the following:
- at running speed, 50 m (I.T. = 8.2 sec

and F.T. = 8.0 sec);
- at the training run (I.T. = 4.16 min and F.T. = 4.11 min);
- when throwing the waffle ball (I.T. = 25.8 m. and F.T. = 28.2 m.);
- at the standing broad jump (I.T. = 154 cm and F.T. = 161cm)

Table 1

7th grade classes (boys and girls)

Test	Girls (n=30)				Boys (n=49)			
	IT	FT	t	p	IT	FT	t	p
Speed	9.6±1	9.4±0.9	3.11	.004*	8.2±0.6	8.0±0.6	5.32	.000**
Training run	3.35±2.2	2.27±2.3	2.76	.010**	4.16±0.6	4.11±0.9	2.51	.015**
Throwing of the wiffle ball	20.6±4.7	22.4±5.1	-4.66	.000**	25.8±5.4	28.2±5.1	-6.98	.000**
Standing broad jump	131±35.5	146±21	-3.74	.001**	154±18.8	161±19.9	-6.87	.000**

The motor performance of the students, or the measurable result of them, is in our view a very important aspect.

Based on the performances recorded in the control tests, the students are scored after reporting to the scale drawn up by each teacher.

In fact, this performance is of little help, as the results of the control tests are not always as expected, representing for about 30-40% of the final score.

This performance (motor performance in the case of our discipline) is found otherwise, in all other subjects included in the curriculum, but it has a share of about 90% of the final score. The other teachers, of the compulsory classes included in the curriculum, carry out a much more objective evaluation than ours, of the physical education teachers, and the obvious improvement of the students' results determines them to appreciate and to grade as the effort made by them.

Analyzing the arithmetic average of the time recorded by the students (girls and boys) at the speed run (I.T.), we applied the same scaling unit (- 0.2 sec for each increased grade) and for the decreasing grades + 0.2 sec.

As a result of this reasoning, we have come to the conclusion that the average of the grades compared to the scale of the National School Assessment System is 4 (four).

After taking the final tests, the progress registered places the students around grade 5 (five), which is insignificant and far under the wire for maximum mark 10 (ten).

By relating the arithmetic average to the scale established for research on training run, we note that, especially in this test, the performance results are very weak, contradicting the apparently good calculus, as the number of dropouts of girls during the race is high at both the initial testing and the upon final testing.

Most students are below grade 4 (four) and even below. There are no exceptions to the boys, who are in the same situation from the point of view of the initial, final performances.

At T.W.B., we find that the results initially-finally registered, offer the possibility of the students to obtain a maximum mark. Both at I.T. as in F.T., girls and boys have the chance to take the only "perfect" 10, according to the performance criterion and the progress achieved.

S.B.J., although it is a test loved by students, this is no exception. Thus, at the initial test, the results of the girls and boys were far under the grade of 5. The final tests show a progress, but insignificant, exceeding by a minimum the passing grade for both sexes.

From figure no. 1 can be seen, a difference of 0"2 made by both girls and boys at speed running.

This fact brings to the fore that the motor performance, that is, the measurable results of the students in this test, have not improved considerably. The standard deviation for girls had an initial value of ± 1 and a final value of ± 0.9.

The value of ''t'' is 3.11, and p <0.004.

In the case of boys, the standard deviation had an initial and final value of ± 0.6.

The value of ''t'' is 5.32, and p <0.000.

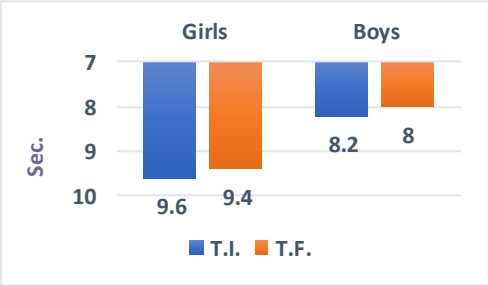

Fig. 1. *Graphical representation of the average values obtained by the 7th class at the 50 m flat speed run*

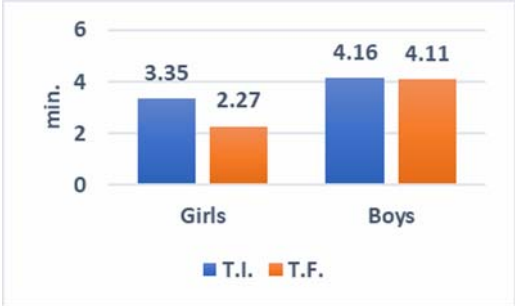

Fig. 2. *Graphical representation of the average values obtained by the 7th class at the training run*

From figure no. 2 can be seen a difference of 1'08" made by girls and 5" made by boys when training resistance.

This could confirm at a first analysis that the motor performance in the case of training running has improved considerably, but it should be noted that in this test there was a large number of dropouts, especially in girls. Most turn running in walking or are shutting down, which leads to the disqualification of the subjects and implicitly the lack of a result that can be quantified and compared to the minimum scale for note 5.

The progress made is a little significant and as we know we cannot guide ourselves exclusively by the numerical value of the rate of progress, since this will always be higher for students with lower initial level and lower for those with higher initial level.

The standard deviation was for girls of ± 2.2 initially, and for final testing ± 2.3. The value of t = 2.76, and p <0.010.

In boys, the initial standard deviation was ± 0.6 and the final one ± 0.9; t = 2.51, and p <0.015.

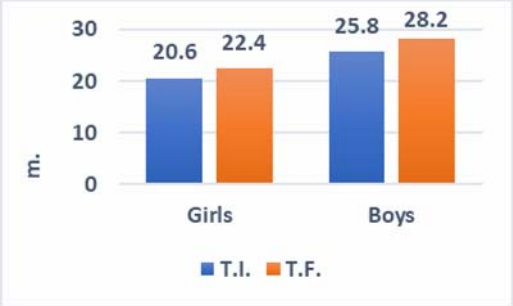

Fig. 3. *Graphic representation of the average values obtained by the 7th class at throwing the waffle ball*

From figure 3 we find a difference of 2.2 m. realized by girls, and 2.4 m. realized by boys when throwing the waffle ball.

The standard deviation, in the case of girls, was ± 4.7 and ± 5.1 (initially, finally); t = -4.66, and p <0.000. The progress made on this tests, is a very significant one.

For boys, the standard deviation was ± 5.4 (initially) and ± 5.1 (finally); t = -6.98 and p <0.000, which also indicates a significant progress here.

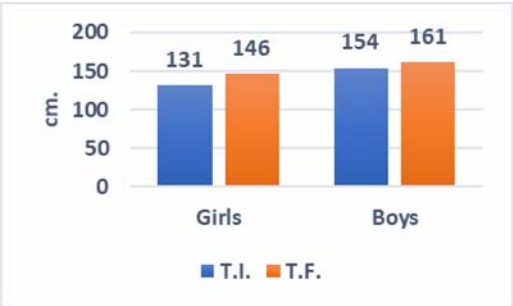

Fig. 4. *Graphical representation of the average values obtained by the 7th class at the standing broad jump*

From figure no. 4 we notice a difference of 25 cm. made by girls and 7 cm. made by boys at the standing broad jump, between the 2 tests (initial test and final test).

The standard deviation recorded the following values: girls: ± 35.5 (initial test), ± 21 (final test) and boys: ± 18.8 (initially), ± 19.9 (finally).

The value of t for girls was -3.74, p <0.001; and in the case of boys, t = -6.87, p <0.000. We notice that the progress in this test is significant, but the final average for both, girls (146 cm.) and boys (161 cm.) is well below the maximum grade according to the scale for the 7th grade.

6. The Importance of other Criteria in the Evaluation Process

Evaluation is a complex process, necessary for the learning process through the regulatory role it fulfils.

It is useful both to teachers, for improving the teaching act, and to students, as it should bring to the fore the level of knowledge acquisition.

The evaluation process must be objective and measurable. This latter criterion has increased the importance and usefulness of studying the other criteria that underlie school success (marking), in physical education at the secondary school.

Starting from the idea that the education system is unitary and compulsory, we are going to discuss the criteria proposed by Gheorghe Cârstea [4].

The progress achieved is a ''different'' criterion that physical education teachers should be guided by it in the assessment of the students, but most of the times the results obtained in the final tests are not much better than the initial tests, which determines a little significant or even insignificant progress.

It is superfluous to remember that this progress is highly dependent on the initial potential of the students. A great progress will be achieved by the students with a

low initial level, while a small progress will be recorded by those who had a high level, at the initial test. Due to the students' ability to choose their control samples, we cannot appreciate and grade the progress from year to year, because the tests may be different.

Also, students with physical development problems will not be able to make significant progress from one test to another.

Under these conditions, this criterion cannot be considered fair in order to carry out an objective evaluation, because it benefits only some students.

We cannot guide ourselves, only by the numerical or qualitative value of the rate of progress. In all motor tests in our line of work, with the exception of throwing the waffle ball, the progress places the student around grade 5 (five), sometimes even below grade 5 (five), if we refer to the training run, where by the great number of abandonment we can even speak of regress. In this test, the teacher is unable to mark, because it can not refer to any scale.

The subject's attitude towards the physical education and sports discipline, materialized by frequency at lessons, participation in competitions and sports actions, the way of carrying out organizational tasks [4], is an ''other'' aspect that can influence the evaluation. As mentioned above, the evaluation, according to the definitions given by the specialists in the field, must be objective and measurable. In these conditions the question arises: how do we measure correctly and objectively the attitude towards the hour of physical education and sports?

In relation to other disciplines (Romanian language and literature, mathematics, English, etc.) we can highlight the fact that only we, the teachers of physical education and sports, take into account, in marking, such a criterion. The marking does not change with anything, when we speak for example of mathematics, and the student does not know the tasks required in the assessment. He will definitely receive the note for his lack of ignorance, no matter that he was attentive every hour and that he has no absences.

The examples could continue, but we will limit ourselves, referring only to the vocational disciplines: music education and plastic education, disciplines in which students will not be marked by 10 (ten) only for attendance at class, with a music notebook and a sketch pad.

The level of physical development of the subject [4], can only be an ''other '' excuse or justification for the teacher's indulgence. We will find that students who are medically exempt can develop physically correctly and harmoniously even if they do not receive any marks, or that students capable of effort may encounter difficulties or problems in their somatic development, even if they manage to complete the tasks of each lesson which involves physical exercise.

Even if we are somehow responsible for providing the premises that will lead in time to a physical education, we must be aware that this criterion cannot influence the actual evaluation of the students in any way.

The capacity of independent exercise of the physical exercises by the subjects [4], cannot be measurable and at the

same time we think that it could only count in the conditions of the improvement of the results in the motor tests sustained at the time of the evaluation. The habit of practicing physical exercises independently will empower the subject, increasing his chances for the success needed for the physical education class, but this criterion refers more to a future period, when the student will practice physical exercise as an adult, so he cannot be quantified during schooling [5], [6].

Looked at separately from the motor performance recorded by students strictly in tests, this is just another criterion that we hold on so desperately, to be able to explain those grade-point averages of 10 of the great majority, avoiding to face the reality that is more than obvious: "the fear" of those medical exemptions that they can obtain with great ease if the physical education discipline will not provide children with a maximum or near maximum grade-point average.

Finally, we can appreciate that these criteria arose from the need to be able to support with arguments the big and very high marks obtained by the students in the physical education discipline, despite the failure to meet the scale, be it and elaborated by any teacher for each class, individualized depending on the motor possibilities.

It is very important for the assessment to be objective and to respect the performance of the subjects, but we must recognize that when talking about other subjects, the student does not benefit from so many criteria that help in the evaluation.

7. Conclusions

Following the study, we can say that the evaluation system, in effect for the 7th and 8th grades, presents many shortcomings in the correct evaluation of all students, having a strong subjective side, thus contravening the evaluation term.

The ratio of the performances achieved by the students is very small (30% or less) and irrelevant in relation to the evaluation system.

The other criteria cannot be considered significant and relevant because they do not have quantifiable measurement systems, because they are not applicable to the other disciplines in the curriculum, because they are not based on a scientific character that takes into account the connection with the purposes of the educational process [7].

We consider that the mark obtained by the students has a major subjective character that does not reflect the competences acquired by the students.

A major shortcoming of the National Assessment System is the lack of unitary character, characterized by the possibility of students to choose the tests or the pairs of tests to support the evaluation and from its validity only for the hours included in the common core curriculum.

The existence of a value scaling only for grade five and the possibility, the liberty of each teacher to develop his/her own evaluation system (adopted at the level of each cycle, customized for each class) also leads to the elimination of the unitary character.

References

1. Bloom, B.S.: *Human Characteristic and School Learning.* New York. Mac Graw Hill, 1976, p. 56.
2. Barbier, J.M.: *L'evaluation en formation*. Paris. P.U.F., 1985, p. 77.
3. Cardinet, J.: *Evaluation scolaire et pratique*, third edition. Bruxelles. Boek-Wesmael, 1988, p. 23.
4. Cârstea, G.*: Theory and methodology of physical education and Sports. For the final exams and the didactic degree II.* București. Publishing House ANDA, 2000, p. 158-171.
5. Delors, J.: *La Educación encierra un tesoro*. Madrid, 1996, p. 97.
6. Hadji, C.: *L' évaluation démystifiée*. Mettre l' *évaluation scolaire au service des apprentisages*. Paris. ESF, 1997, p. 30.
7. Noizet, G.: *Psychologie de l'évaluation scolaire*. Paris. P.U.F., 1978, p. 76.