QUALITATIVE DEVELOPMENT DRIVING LESSON IN PHYSICAL EDUCATION AND SPORT USING STATE BASKETBALL

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Abstract
Based on the extent of got it today grassroots sport and sport performance both internationally and nationally well as one of the disciplines that deal with children initiating an industry practice sports are physical education curriculum. Physical education lesson should be the basis of mass sport performance.

Keywords: physical education, motor skills, basketball, physical training.

Introduction
Basketball is one of the most popular team sports in the world and is characterized by finesse, precision and technical and tactical exercises imagination through waist high and special physical qualities of athletes, all sports involved in a fight claiming team spirit and of sacrifice, intelligence and nervous strength.

Points are scored by throwing the ball (aiming) through the basket from above, the team that accumulates more points at the end of the game wins.

The ball can be made to advance the field by dribbling or by passing it to other teammates. Physical acts unsportsmanlike (foul) are penalized and there are restrictions on how it is used (violations).

Over time, the basketball have developed techniques common sight, poultry and dribbling, as well as the positioning of the players, and offensive and defensive structures.

Usually the most senior players will take center or one of two forward positions, while smaller sized players or those who have speed and the best handling abilities of the ball, will occupy the position of guard.
While competitive basketball is like some rules, numerous variations of basketball have developed for casual games. In some countries, basketball is a popular sport with many spectators.

We believe that the use in physical education classes and sports of basketball means they will lead to a higher morphological development, motor skills development index parameters and to raise skills training organization and independent practice of the game of basketball.

**Methods used**

A. Bibliographical study;
B. Method of observation;
C. Method of registration;
D. Questionnaire;
E. Formative psycho-pedagogic experiment as the main research method;
F. Statistical and mathematical methods;
G. Method tests.

**A. Bibliographical study** is an indispensable method in research, especially in a time of information explosion manifests itself strongly, which causes perishable information in all fields. Therefore before starting the actual research is needed documentation to-date information on the topic covered, also documenting ongoing, systematic and appropriate is a binding act.

**B. Observation** is one of the oldest methods of research which uses the self-contained (individual) or anticipatory phase of an experiment or observation method in experiment between the experimental and tracking is intentional and systematic accurate recording the different manifestations studied as the current situational context. In the subjective observation as a method to track the behavior and attitude of staff towards physical education class in general and to the game of basketball in particular. In a more restricted process of observation considered tracking students with skills and more developed motor skills tending to practice basketball performance.

**C. Method of recording and implementing tables evolution in**
matches we used to obtain objective indicators on the effectiveness of the means used to verify that the instructional model training parameters. In this case we used recordings made by me in matches held at Arad, and if backed away matches we used sheets of arbitration.

D. The questionnaire is programmed sequence, logical and psychological utterances (interrogative and / or enumeration) that the interdependence between them form a single whole, and by giving operators the investigation, or by a self or subject group of subjects, determined by their verbal behavior to be recorded in writing, tape or telematics support.

E. fundamental research experiment that our method has enabled verification of training means that we have included in preparedness plans.

F. Following implementing tables results and measurements we obtained several lines of data that we have processed and interpreted according to the methodology of scientific research.

Thus, in assessing the results and as comparison we used the weighted average (Mc or X), and we chose to assess the homogeneity of the amplitude (A or W), amplitude is a parameter category dispersion factor is calculated as follows:

$$W = X_{\text{max}} - X_{\text{min}},$$

- Where $X_{\text{max}}$ and $X_{\text{min}}$ are the highest, respectively lowest in the data string, this parameter giving us information about the homogeneity of the results obtained from subjects.

G. Tests - in the evaluation and testing of the classroom in order to establish the general physical training and special training were used:

**General Physical Preparedness**

“Standard test fitness”

- Speed running 50 m;
- Long jump on the spot;
- Running resistance 600 m;
- Throwing the rounders;
- Maintained hung with arms bent at fixed bar;
Special physical training
Samples and control rules of basketball specific training:
- Running speed with changing direction and swivel;
- DX vertical;
- Shooting 4.5 m.

Results
The experiment was conducted during the 2012-2013 school year, semester I and II from October of 2012 to end in May of 2013, National College “Moise Nicoară” for grades VII A and VII to B.

National College “Moise Nicoară” has following equipment:
- Room, size 22/12m with two panels;
- 2 golf school stadium, regular;
- Athletics track 50m with 3 lanes running;
- Running track length of 224 m;
- Sand pit for jumping;
- Regular balls;
- Traction bar.

Training team of students was held in physical education classes and sports mostly basketball themes, two hours a week with 50 minutes. We used a large number of regular basketball (10-15 balls).

All these conditions allowed, especially during favorable time, when he worked on the sport, to carry out a large number of repetitions.

Experimental Class VII A was composed of 34 students, 18 boys and 16 grade girls counting and control class seventh B composed of 32 students 17 boys and 15 girls.

Initial testing was done in the period 1 to 12 September 2012, for general physical training samples contained in “Standard Fitness”:

- Speed running 50 meters, Long jump on the spot, Running resistance 600 m, Throwing the rounders, Maintained hung from
his arms folded flat bar, shuttle, raising the trunk of the dorsal recumbent position, Mobility coxofemural previous plan.

Final testing was conducted from May 10 to 15, 2013.

Initial testing on samples of special physical training took place October 25 to 30, 2012, namely: Running speed with changing direction and swivel; Detention vertically, 4,5 m Shooting. Final testing was done 18-28 May 2013.

The study aims to demonstrate to what extent the practice in physical education classes and sports of basketball skills contribute to the development of basic and specific motor skills.

From studying the results obtained at the initial and final tests in general training test samples and test specific basketball game and applying three representative indicators resulting statistical and mathematical analysis of the developments of the two working groups (experimental group and control group - boys and girls) during the school year 2012-2013. Such indices were calculated following statistical mathematics:

\[ M = \text{arithmetic mean}; \]
\[ A. S = \text{standard deviation}; \]
\[ C. V = \text{coefficient of variation}. \]

**B. Specific tests for basketball**

1.) **DX vertical**

In this sample “DX vertical” although left close results, as

<table>
<thead>
<tr>
<th>Nr. crt.</th>
<th>Indicators</th>
<th>Girls</th>
<th>Boys</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ti</td>
<td>Tf</td>
<td>Ti</td>
</tr>
<tr>
<td>1</td>
<td>M</td>
<td>25,2</td>
<td>26,4</td>
</tr>
<tr>
<td>2</td>
<td>A. S.</td>
<td>± 6,7</td>
<td>± 7,7</td>
</tr>
<tr>
<td>3</td>
<td>C. V.</td>
<td>26,28%</td>
<td>26,33%</td>
</tr>
</tbody>
</table>

<table>
<thead>
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<th>Nr. crt.</th>
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<th>Girls</th>
<th>Boys</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Ti</td>
<td>Tf</td>
<td>Ti</td>
</tr>
<tr>
<td>1</td>
<td>M</td>
<td>24,1</td>
<td>27,8</td>
</tr>
<tr>
<td>2</td>
<td>A. S.</td>
<td>± 6,8</td>
<td>± 7,8</td>
</tr>
<tr>
<td>3</td>
<td>C. V.</td>
<td>26,94%</td>
<td>26,76%</td>
</tr>
</tbody>
</table>

expected in the end group of girls progressing much better than the group of boys, especially since the long jump test situation
was totally opposite. Both groups presented high values of standard deviation.

2.) The sample specific speed

The results obtained for the “specific speed” are also those obtained for the “shuttle” because of similarities in terms of changes in running direction and the results are better in the group of boys (both the experimental and the control), which during the year school also achieved greater progress. The results show a small standard deviation of the results of the group.

3.) Shooting

According to the table above, the results of both groups to test

<table>
<thead>
<tr>
<th>Nr. det.</th>
<th>Indicators</th>
<th>Girls (Ti)</th>
<th>Girls (Tf)</th>
<th>Boys (Ti)</th>
<th>Boys (Tf)</th>
<th>Obs.</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>M</td>
<td>32.4</td>
<td></td>
<td>31.1</td>
<td>29.8</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>A. S.</td>
<td>± 1.7</td>
<td>± 1.9</td>
<td>± 1.3</td>
<td>± 1.6</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>C. V.</td>
<td>6.18%</td>
<td>8.24%</td>
<td>5.33%</td>
<td>6.48%</td>
<td></td>
</tr>
</tbody>
</table>

Sample specific speed – The control group

<table>
<thead>
<tr>
<th>Nr. det.</th>
<th>Indicators</th>
<th>Girls (Ti)</th>
<th>Girls (Tf)</th>
<th>Boys (Ti)</th>
<th>Boys (Tf)</th>
<th>Obs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>M</td>
<td>33.4</td>
<td>30.2</td>
<td>32.2</td>
<td>29.4</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>A. S.</td>
<td>± 1.8</td>
<td>± 1.7</td>
<td>± 1.8</td>
<td>± 1.8</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>C. V.</td>
<td>6.34%</td>
<td>7.12%</td>
<td>6.26%</td>
<td>6.89%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nr. det.</th>
<th>Indicators</th>
<th>Girls (Ti)</th>
<th>Girls (Ti)</th>
<th>Boys (Ti)</th>
<th>Boys (Tf)</th>
<th>Obs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>M</td>
<td>1.54</td>
<td></td>
<td>2.16</td>
<td>2.76</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>A. S.</td>
<td>± 0.7</td>
<td>± 1.5</td>
<td>± 1.3</td>
<td>± 1.5</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>C. V.</td>
<td>46.18%</td>
<td>43.24%</td>
<td>45.33%</td>
<td>42.48%</td>
<td></td>
</tr>
</tbody>
</table>

Shooting – The control group

<table>
<thead>
<tr>
<th>Nr. det.</th>
<th>Indicators</th>
<th>Girls (Ti)</th>
<th>Girls (Ti)</th>
<th>Boys (Ti)</th>
<th>Boys (Tf)</th>
<th>Obs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>M</td>
<td>1.45</td>
<td></td>
<td>2.23</td>
<td>2.34</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>A. S.</td>
<td>± 1.2</td>
<td>± 1.4</td>
<td>± 1.4</td>
<td>± 1.5</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>C. V.</td>
<td>46.34%</td>
<td>47.12%</td>
<td>46.26%</td>
<td>45.89%</td>
<td></td>
</tr>
</tbody>
</table>

“shooting” initially indicates higher values for boys, but the final results show better progress than girls group as a result of
attention and a higher power of concentration of the test static moments over boys. The results obtained for “shooting”, the large standard deviation in both groups at both girls and boys.

**Discussions**

To verify the hypothesis stated at the beginning of the paper, we proposed making a pedagogical experiment that has the following stages of development;

- **Documentation**, through study of the literature, the issues required for programming, planning and design of the physical education lesson with themes mainly from basketball to optimize, streamline training activity;
- **Planning model composition and evaluation activity** in physical education class and sports mostly basketball themes, adapted to the concrete conditions of middle-school and school materials;
- **Setting objectives and main means** used in physical education class and sports mostly basketball themes;
- **Establish control samples**, measurement, quantification and comparison of the results in order objectification activity, driving quality parameters proposed to be pursued;
- **Registration verification results** and general and specific control samples basketball game;
- **Interpretation of data** collected from the results and draw conclusions based on them and formulate proposals to optimize the activity in physical education class and sports mostly basketball topics.

**Conclusions**

According to the study conducted and the conduct of business during the school year 2012-2013 in physical education classes and sports National College “Moise Nicoară” for grades VII mentioned in the work of tabulation and calculations some conclusions can be drawn:

Doing a study on the progress of the classroom VII A test of the evidence “Standard Fitness Test” and specific evidence it
appears that basketball game basketball taught in physical education classes in seventh grade its make a substantial contribution to the development of motor skills and physical education objectives;

According to the tables in the sub-chapter “Appendix” find a good development in many cases very good but basic motor skills and specific skills as well as driving, making the first steps towards initiating students into the world of basketball performance;

By using the means of the game of basketball and the game was done by practicing a good morpho-functional development, especially the growth in height of the subjects. So we can say that the role of media in basketball and the game of basketball as a means of physical education and sports students to develop motor skills has been achieved;

All tests have been conducted and evidence, normally a significant increase from one test to another, due to the work done in this regard, during the school year, from this perspective and within our pedagogical experiment, the hypothesis of the paper is confirmed, is optimizing the planning documents, both in form and in content, physical education classes and sports-themed basketball contributes significantly to improving motor skills, specific skills of the game of basketball as well as increased frequency of students’ education classes sports;

Design work, and the entire contents of the training, selection and dosing means used have proven efficacy, the results obtained;

Developments are not spectacular, but support the idea that by exercises and organized, progress can be made on line general and specific motor skills and play basketball line;

Our proposal is to proceed directly to basketball practice in physical education lessons in secondary school classes, promote it in schools is less known and practiced, organizing as many school competitions to boost the competitiveness of the children, creating minimum requirements for practicing the game in all schools with secondary classes;

This paper sought to develop a model of work training in phys-
ical education lesson themed basketball, to schedule and to order and quantify the main means and physical structures-technical-tactical, the subject of the experiment led to positive results;

A number of pupils participating in the study have formed the habit of solo play basketball during recess and free time, and a number of two boys and three girls were advised by Mr. M.C., professor of physical education and sport to is part of the School Sports Club Arad for practicing basketball performance.

REFERENCES:
1) AVRAMOFF, E., (1997), Dinamica efortului în lectia de educație fizică, Revista E.F.S. nr. 5, București;
2) BACHNER L., GRĂDINARU, C., (1996), Baschet — Metoda învățării, Editura Mirton, Timișoara;
3) BACHNER, L., IONESCU, D., (2003), Baschet – tehnică, tactică și metodică, Editura Politehnica, Timișoara;
4) CHIRIȚĂ, G., (1974), Optimizarea lecției de educație fizică, Editura Stadion, București;
5) DEMETER, A., (1974), Bazele fiziologice ale educației fizice școlare, Editura Stadion, București;
6) DRAGNEA, A., (1984), Măsurarea și evaluarea în educație fizică și sport, Editura Sport -Turism, București;
7) HRIȘCĂ, A., (1985), Baschet la copii și junioiri, Editura Sport - Turism, București;
9) PREDESCU, T., TEODORESCU, L., VASILESCU, L., (1979), Baschet, Editura Sport — Turism, București;
10)SCARLAT, E., (2002), Educație Fizică și Sport, Editura Didactică și Pedagogică, București;