Assessment motor skills of secondary school children with basketball

COJANU FLORIN¹; POPOVICI GHERGHITA²

¹ University of Pitesti, ROMANIA

² School "Radu cel Mare" Găești, ROMANIA

Published online: September 30, 2013

(Accepted for publication July 20, 2013)

DOI:10.7752/jpes.2013.03051;

Abstract:

Purpose – The aim of this study is to determine the general motor level of school children with basketball profile. This aim will allow to develop effective teaching strategies for exploitation route objectives-content-strategies-evaluation.

Conclusions and discussions - For every class it can be prepared protocols that will target quality assessment of the technical processes of learning activities and physical skills.

Curriculum restructuring basketball and ordering them during the training process enables two important operations for the quality of instruction (teaching – learning basketball) as follows:

1. Assessing the quality of education obtained by dividing the objective lens made. In this connection is made between the external feedback and objective assessment test instruction set.
2. Teacher evaluation events and activities used in the lesson including organizing and managing the training process.

Key words: basketball, motor skills, assessment.

Introduction

The game of basketball is a specific event and also to practice as playful and sporty character (agonistic), the activity tangible and physical exercise, in which participants organized into two teams of 5 players who are temporarily in an adversarial relationship, typical to sports game, called sports rivalry, fight on a specially decorated with baskets of basketball, handled as provided by in the rules of the game. As part of school education, sports education should provide students training on line key European powers established as the end of education and training systems in the European Community countries, each subject being asked to bring their specific contribution to their achievement. (Berceanu, 2006)

The general objective of this discipline is to develop practical sports training bio-psycho-motor skills and building the capacity of the students to harness their maximum level competitive sport, specific to age and education level, continuing the permanent optimal state of health, ensuring a harmonious physical development and motor skills manifestation of a favourable social and professional insertion. (Catanescu, 2004 & Colibaba, 2007).

Practice athletic training in sport and participation in competitions put the student in specific situations such as:

- communication within specific sports discipline in Romanian and foreign languages the teacher trainer, the training colleagues / team, towith opponents and referees;
- referral morphological changes, functional and psychological generated by the training and the substrate biochemical and physiological stress reactions in the body;
- analyze the biomechanical aspects of the sport specific technical processes of specialization and act, if necessary, to improve some parts;
- search, storage and communication, by means of information and communication technology, data regarding: components and specialized training methodology in practiced sports, current performance achieved nationally and globally, efficient technologies and equipment in the field of specialty facilities etc. ;
- initiation and maintenance of interpersonal relationships, self-personal relationships in accordance with accepted and prohibited behaviours in practiced sports, mediating conflict situations that may arise during training and competitions;
- awareness of the relationship between rights and obligations, the implications sporting legitimacy, of a commitment or agreement, the correlation between the performance achieved and material support they receive, understand the status of professional sports;

➤ use of certain categories of effective training methods and sports training components and their assessment tools that can be used independently of the parameters, corresponding personal development training of the athlete.

Practical sports training program allows each teacher to establish the and specific skills training, using, as means, the of content categories they deem effective, corresponding to the particularities group of students. (Bompa, 2003)

In integrated and additional sports education, the groups consist of students from the same class or different classes, with tentative, the promotions to higher level groups properly realizing according to manifested objective performance capacity (in competitions) by each student. (Hastie&co, 2012)

Values and attitudes (Hansa, 2003)

- Desire for self-improvement and perseverance in going beyond training and performance objectives
- Manifestation competitive spirit in training and competitive activities
- A sense of duty and responsibility in training and competition
- Respect for rules, partners, opponents, referees, spectators
- The manifestation of the spirit of fair play, both in sport and in society
- Willingness to collaborate with partners to initiate and maintain inter-human relationships
- Objectivity in assessing their own performance, the teammates and opponents
- Option for a healthy and balanced life for the adoption of a business program that combines harmoniously with the intellectual exercise, requiring the restoration, busy time with the free time
- Constant interest in sports phenomenon
- Aesthetical sense and opening for beauty
- Option for a healthy and balanced life for the adoption of a business program that combines harmoniously with the intellectual exercise, requiring the restoration, busy time the free time.

Method

The place and conditions for research

The experiment itself was held at School "Radu cel Mare" Găești. We chose this school which is largely equipped with suitable equipment material for what we wanted to examine. Thus, making a general inventory of the debt necessary to carry out the process of Ister, we can say that the school has a sports field, gym, training materials: balls, cones, gymnastic benches, trellises, etc.

Operational approach

The process of initiating children in basketball coincides with the first semester of school 2011/2012 - experimental group has conducted special training after a global project built without sacrificing the objectives and framework of reference, curricula we introduced specific objectives and content basketball. Meanwhile, the monitoring group has been operating normally - that is respecting classical methodology.

Results

Following the application of evidence evaluation of performance of initial and final moments of the experiment, we obtained the following results that we have compared to confirm the proposed hypothesis. We present below the data for the classes start and end of secondary school, fifth grade (table 1), respectively eighth (tabel 2).

Tabel 1 - Comparative analysis of motor skills (grade five)

CONTROL GROUP						
Statistical indicators	Run 20m (sec.)	Stand long jump (cm.)	Agility (sec.)	Hold (sec.)	Pushups (no. repeats)	Mobility (cm.)
X						
T.I	3,79	153,66	14,91	51,16	15,75	23,08
T.F	3,73	155,33	14,16	52,41	16,75	23,5
Mean difference	0,06	1,67	0,75	1,25	1	0,42
T critical	2,228	2,228	2,228	2,228	2,228	2,228
T value	0,5754	0,7317	2,2664	0,4174	1,5906	0,5223
P significance limit	Insignificant 0.5709	Insignificant 0,4721	Significant 0.0336	Insignificant 0.6804	Insignificant 0.1260	Insignificant 0.6067

EXPERIMENTAL GROUP						
Statistical indicators	Run 20m (sec.)	Stand long jump (cm.)	Agility (sec.)	Hold (sec.)	Pushups (no. repeats)	Mobility (cm.)
X						
T.I	3,92	157,16	16,16	49,08	14,91	22,75
T.F	3,43	162,08	14,66	55,5	16,66	24,33
Mean difference	0,49	4,92	1,5	6,42	1,75	1,58
T critical	2,228	2,228	2,228	2,228	2,228	2,228
T value	3,2880	3,5071	4,2961	2,7660	3,9921	3,5217
P significance limit	Significant 0.0034	Significant 0,0020	Significant 0.0003	Significant 0.0113	Significant 0.0006	Significant 0.0019

From the comparative analysis of the average of the two groups (control and experiment), for fifth grade level we can say that in the 20m Running speed sample we can identify a difference of 0.06 for the control group with a threshold slightly, while in the experimental group the difference has a value of 0.49, and materiality has a value of 0.003, which supports the idea that this may be due to mainly new program content proposed by us to the experimental group.

In the case of long jump test we identify immediately a difference of 1.67 for the control group with a slightly significance level, while the difference for the experimental group has a value of 4.92, and the significance level is important, which supports the idea that this may be due to the content of the training programs proposed new 1-10.

In the case of Agility we identify a difference of 0.75 for the control group with a significant threshold (0.03), while the difference for the experimental group has a value of 1.5, and materiality has significant value (0.0003), which supports the idea that this may be due of the new training programs proposed for the experimental group.

Comparative analysis of the average of the two groups for Maintenance sample was identify a difference of 1.25 for the control group with a slightly threshold, while the difference for the experimental group has a value of 6.42 and materiality has a value of 0.01, which supports the idea that this may be due of the new training programs proposed for the experimental group.

In the case of push-ups find a difference of the control group with an insignificant threshold (0.12), while the difference for the experimental group has a value of 1.75, and the threshold has a significant value (0.0006), which supports the idea that this may be due obviously to the new training programs proposed for the experimental group.

In the case of Mobility we find a difference of 0.42 for the control group with an insignificant threshold (0.606), while the difference for the experimental group has a value of 1.58, and has significant value threshold (0.001), which supports the idea that this may be due obviously to the training programs proposed for the new experimental group.

Fig. 1 - Comparative analysis of motor capacity

Table 2 - Comparative analysis of motor skills indicators (eighth grade)

CONTROL GROUP						
Statistical indicators	Run 20m (sec.)	Stand long jump (cm.)	Agility (sec.)	Hold (sec.)	Pushups (no. repeats)	Mobility (cm.)
X	T.I	3,21	182	10,91	66,33	28,75
	T.F	3,17	183,41	10,5	67,41	29,16
S	T.I	0,11	4,28	0,79	6,38	1,76
	T.F	0,08	3,84	0,52	5,61	1,40
CV	T.I	3,42	2,35	7,24	9,61	6,12
	T.F	2,52	2,09	4,95	8,32	4,80
Mean difference	0,04	1,41	0,41	1,08	0,41	0,66
T critical	2,228	2,228	2,228	2,228	2,228	2,228
T value	1,0187	0,8494	1,5017	0,4404	0,6315	1,0102
P significance limit	Insignificant 0.3194	Insignificant 0.4048	Insignificant 0.1474	Insignificant 0.6640	Insignificant 0.5342	Insignificant 0.3234
EXPERIMENTAL GROUP						
Statistical indicators	Run 20m (sec.)	Stand long jump (cm.)	Agility (sec.)	Hold (sec.)	Pushups (no. repeats)	Mobility (cm.)
X	T.I	3,09	181,16	11,08	77,16	29,75
	T.F	3,01	183,25	10,33	84,66	33,41
S	T.I	0,09	2,20	1,08	8,36	2,63
	T.F	0,03	1,13	0,49	5,06	1,49
CV	T.I	2,30	1,21	9,74	10,83	8,84
	T.F	0,99	0,61	4,74	5,97	4,45
Mean difference	0,08	2,09	0,75	7,5	3,66	1,5
T critical	2,228	2,228	2,228	2,228	2,228	2,228
T value	2,9212	2,9273	2,1907	2,6587	4,1944	2,1118
P significance limit	Significant 0.0079	Significant 0.0078	Insignificant 0.0594	Significant 0.0143	Significant 0.0004	Insignificant 0.063

In the case of control group samples we identify only insignificant differences for all samples included in the experiment, mainly due to the content of training at this level, which aim effectively the development of such motility parameters specific to general motor ability.

In the case of experimental group for all samples included in the evaluation we only find significant differences with a threshold of (0.007, 0.007, 0.01, 0.0004), two tests for Agility and Mobility are on limit of significance 0.05 and 0.06, as you see in the chart no. 2, which supports the idea that this may be due obviously to the new training programs proposed for the experimental group at the eighth grade.

Fig. 2 - Comparative analysis of the technical and tactical in eighth grade

Conclusions

Following the completion of the experiment there were separated a few general conclusions that are very important to avoid errors that might occur in practice. We mention the following:

1. We note that it is necessary to restructure and rethink the syllabuses that were made using sheets of discipline that facilitate a clearer picture of the whole of the curriculum developed.

2. Comparative analysis of the average of the two groups (control and experiment), fifth grade we can notice that for all the samples evaluated in the experimental group there is significance, while the control group has the agility test as significant.

3. Comparative analysis of the average of the two groups (control and experiment), the eighth-grade we can say that for all the samples evaluated in the control group only identify insignificant differences for all samples included in the experiment, we believe mainly due to the content of training at this level, which effectively targeted the development of these general motor function specific parameters.

4. It turns out that the traditional methodology of teaching basketball in middle school would be ineffective before allowing the teaching empirical approach without taking into account the quality and effectiveness of training conducted.

5. The data obtained so far is the idea that teaching basketball shape will be more effective if we realize the curriculum operational with the following products:

- development of new basketball class syllabus;
- composition sheet discipline physical education classes;
- global drafting stage semester and year;
- develop learning units for each of the driving skills to be developed and main objectives of specific technical and tactical training game of basketball.

Methodological feedback

Assessment of teaching basketball after new analytical programs developed protocols that can be followed by observation. In general it can evaluate the quality of learning of technical processes and business topics, as: goal achieved / proposed objective.

Curriculum restructuring basketball and ordering them during the training process enable two important operations for the quality of instruction (teaching - learning basketball) as it follows:

1. Assessing the quality of education obtained by dividing the objective lens made. In this connection it is made between the external feedback and objective assessment test instruction set.

2. Teacher evaluation events and activities used in the lesson including organizing and managing the training process.

For every class it can be prepared four protocols that will target quality assessment of the technical processes of learning activities and physical skills.

References

- Berceanu, D. (2006). *The concept of playing and training basketball teams*, FRB, Bucharest, 38-42
- Bompa, T. (2003). *Performance in sports games*, Publishing Ex Ponto, SNA Bucharest, 89-93
- Catanescu, C. (2004). Skill dominant quality of the game of basketball, Doctoral Working Paper No. 3 Univ. Pitesti, 24-28
- Colibaba/Evulet D. (2007). *Praxiology and projection in physical education and sport*, Publishing house University of Craiova, 51-64
- Curricula cl.V-VIII. (1999). National Council for Curriculum, Ministry of Education, 3-8
- Dictionary of pedagogy (1979), EDP, Bucharest, 388
- Hansa, C. (2003). *Learning the game of basketball*, Ed Foundation Lower Danube Galati, 65-74
- Hastie, P., Brock, S., Mowling, C. & Eiler, K. (2012). Third Grade Students' Self-Assessment of Basketball Dribbling Tasks. In *Journal of Physical Education and Sport®(JPES)*, 12(4), Art 63, pp. 427-430