CASE STUDY – DEVELOPMENT OF GENERAL MOTRICITY AT MINIBASKETBALL

Alexandra Reta IACOBINI[1]
Adrian IACOBINI[2]

Abstract

A case study regarding the develompent of general motricity at Minibasketball teams, by analizing the improvements of two teams, boys and girls, after one training season in whitch we followed the Romanian Basketball Federation model of training.

The study started from the hypothesis that if we follow the models proposed by the specialized federation then the trained players will be able to perform better in the game of basketball.

In the Baby and Minibasketball categories, the purpose of the training must be to lay the foundations of the game's technique for future efficiency in the competitions in which they will participate.

Keywords: *Babybasketball, Minibasketball, Development of general motricity, Training model for Minibasketball, General motricity tests*

JEL Classification: **I10, I19**

DOI: 10.24818/mrt.20.01.01.02

1. Introduction

The performance of mature athletes depends on their training from the beginning. According to current statistics from the European Championships where we played with the country's senior representatives, and from the point of view of stature, our teams are competitive with the leading teams, both as an average per team and per position. However, a number of gaps were identified in the selection and training of our athletes: insufficient level of development of specific motor skills, poor level of individual technical and tactical training in attack (reduced ability to play effectively in the 1x1 relationship, lack of precision basket throws from action and from the free throw line), the reduced ability to apply in the game the technical and tactical combinations of 2-3

[1] Iacobini Alexandra Reta, Sports School Club No. 4, Bucharest, Romania, iacobini_alexandra@gmail.com, +40 766 441 989

[2] Iacobini Adrian, University of Economic Studies, Bucharest, Romania, adrian.iacobini@gmail.com, +40 731 766 979

players and the mentality and attitude towards training and competition.

All these aspects determine the performance in basketball and they must be constantly monitored from Baby and Minibasketball to seniority. In this context, it is absolutely necessary a unitary model of play and training that addresses all sports structures that prepare children for the great performance in basketball.

We chose this topic because we have been working with children for a couple of years, and we believe that the training of children in the game of basketball is the cornerstone of national and international performance as a country.

Currently, in Romania, there are many basketball clubs, and the desire to assert itself is growing, putting pressure on obtaining results from the youngest possible age, which leads to incorrect training of children.

In the Baby and Minibasketball categories, the purpose of the training must be to lay the foundations of the game's technique for future efficiency in the competitions in which they will participate.

2. The model of training for Baby and Minibasketball

Table 1. Model of training for Baby and Minibasketball

	Babybasketball	**Minibasketball**
Age	Younger than 10 years old	Younger than 12 years old
Training level	Beginners, initiation group	Beginners, initiation group
Trainings ammount	120 – 180 hours	200 – 260 hours
Games ammount	20 – 30 games	30 – 35 games
Type of selection	Initial selection	Initial selection
Methodical guidance	Global preceptual motor training	Global preceptual motor training
Physical training	General physical training	General physical training and individualized action to create the physical support necessary to master the basic technique
Force	5%	10%
Resistence	10%	10%
Speed	30%	30%
Motor skills	35%	30%
Mobility	20%	20%
Technical-tactical training	Learning, initiation	Correct learning of the fundamental technical-tactical elements contained in a minimal game model.
Team structure	12 players	12 players

	Babybasketball	Minibasketball
Attack system	Free, keeping spaces between players	Semicircle
Specialisation by position	Universalism	Universalism

3. Organisation and conduct of the study

The study started from the hypothesis that if we follow the models proposed by the specialized federation then the trained players will be able to perform better in the game of basketball.

The athletes participating in this study are part of the minibasketball age category, beginner level, girls and boys, being part of the groups we have been training.

Below in Table 1 we present the composition of the boys and girls teams.

Table 2. Boys team composition

No.	Players initials	Age	Height (cm)	Weight (kg)
1	G.C.	11	140	33
2	G.I.	11	135	32
3	T.I.	11	137	35
4	T.C.	10	135	33
5	H.L.	9	130	31
6	M.A.	10	134	25
7	D.A.	10	130	26
8	V.A.	9	130	30
9	T.D.	10	132	26
10	G.B.	10	125	40
11	I.M.	10	130	24
12	N.A.	10	131	28

Table 3. Girls team composition

No.	Players initials	Age	Height (cm)	Weight (kg)
1	H.I.	11	160	40
2	V.S.	10	141	35
3	P.V.	9	132	32
4	A.B.	9	135	30
5	S.D.	9	130	32
6	T.B.	11	145	35
7	L.B.	11	140	30

8	M.B.	11	141	33
9	L.D.	10	138	28
10	H.R.	9	135	23
11	I.S.	9	135	28
12	M.A.	9	136	28

So we can observe the impact of the Romanian Federation of Basketball model of training, we performed two sets of tests on our subjects, as follows:

- Initial testing, performed at the time of group formation, at the beginning of the competition season, as part of the initial selection, consisting of 4 tests to check the general motor skills of children, related to the requirements of playing basketball and

- The final testing, performed at the end of the competition season, following the application of the training model, consisting of the 4 tests from the initial testing, focusing on observing the evolution of children after learning.

The tests we used were:

- Test 1: speed running over a distance of 20 meters, with the aim of investigating the speed of movement. We wrote down the best time obtained from two attempts, in seconds and tenths of a second.

- Test 2: running between cones with change of running direction. 6 zig-zag cones are placed along the length of the field, at a distance of 2 meters from each other. We wrote down the time obtained in seconds and tenths of a second.

- Test 3: vertical jump on the spot, with the aim of checking the explosive force of the lower limbs, by performing two vertical jumps on the spot, with detachment on both feet in height and reaching the wall at the highest possible point. We marked with a dot on the wall the place where the athlete touches the wall in the sitting position with his arm outstretched. When jumping, the place of touch is marked on the wall. We wrote down the highest jump in centimeters, calculated from the point initially marked to the point obtained by the jump.

- Test 4: raising the torso to 90 degrees from the supine position in 30 seconds, with the aim of investigating the abdominal force. From lying on the back, with the hands at the nape of the neck, the torso is raised vertically, sitting with the knees touched with the elbows and returning to lying on the back with the shoulders on the ground. We wrote down the number of correctly executed executions in 30 seconds.

The results obtained at the initial testing, performed at the beginning of the competition season, as part of the group formation stage, were noted in the

tables below:

Table 4. Initial tests results – boys team

No.	Players initials	Test 1 (sec)	Test 2 (sec)	Test 3 (cm)	Test 4 (no)
1	G.C.	4.02	9.13	34	14
2	G.I.	3.5	8.18	37	15
3	T.I.	4.03	9.48	34	12
4	T.C.	4.24	9.87	31	10
5	H.L.	5.02	11.62	28	8
6	M.A.	3.92	8.95	34	13
7	D.A.	3.24	8.09	37	16
8	V.A.	4.87	10.25	31	11
9	T.D.	4.17	9.33	34	12
10	G.B.	4.74	10.78	32	11
11	I.M.	3.55	8.18	36	15
12	N.A.	4.35	9.71	32	13

Table 5. Initial tests results – girls team

No.	Players initials	Test 1 (sec)	Test 2 (sec)	Test 3 (cm)	Test 4 (no)
1	H.I.	4.44	10.29	30	10
2	V.S.	4.60	11.97	30	9
3	P.V.	4.63	11.20	24	12
4	A.B.	4.41	10.07	24	11
5	S.D.	4.36	11.10	28	12
6	T.B.	3.92	9.04	28	13
7	L.B.	3.72	9.02	30	14
8	M.B.	3.93	8.92	30	14
9	L.D.	3.76	9.30	33	13
10	H.R.	4.24	10.31	30	11
11	I.S.	4.45	10.36	21	9
12	M.A.	4.62.	10.12	23	9

The results obtained at the final testing, performed at the end of the competitive season, following the application of the game and training model proposed by the Romanian Basketball Federation, were noted in the tables below:

Table 6. Final tests results – boys team

No.	Players initials	Test 1 (sec)	Test 2 (sec)	Test 3 (cm)	Test 4 (no)
1	G.C.	3.94	8.90	35	15
2	G.I.	3.22	8.02	40	17
3	T.I.	3.94	9.46	35	13
4	T.C.	4.08	9.63	34	12
5	H.L.	4.77	10.77	31	11
6	M.A.	3.81	8.86	36	15
7	D.A.	3.21	8.03	39	18
8	V.A.	4.83	9.82	33	13
9	T.D.	4.01	9.25	35	14
10	G.B.	4.70	10.69	34	12
11	I.M.	3.48	8.08	38	16
12	N.A.	4.27	9.67	34	14

Table 7. Final tests results – girls team

No.	Players initials	Test 1 (sec)	Test 2 (sec)	Test 3 (cm)	Test 4 (no)
1	G.C.	4.31	9.97	31	12
2	G.I.	4.47	10.73	32	11
3	T.I.	4.58	10.96	25	14
4	T.C.	4.29	9.35	26	12
5	H.L.	4.15	10.78	30	14
6	M.A.	3.79	8.89	29	15
7	D.A.	3.60	8.90	32	16
8	V.A.	3.85	8.84	33	15
9	T.D.	3.53	9.03	34	16
10	G.B.	4.16	10.14	31	14
11	I.M.	4.28	10.15	24	12
12	N.A.	4.51	10.01	25	11

4. Results Interpretation

Following the two tests performed, the initial one, applied in the primary selection phase of the two groups and the final one, at the end of the competitive season, we could observe an evolution of the results obtained by athletes in the established tests, both for boys, as well as for girls, following the implementation of the training model proposed by the Romanian Basketball Federation.

Analyzing the results obtained in the initial testing we were able to make the training plan for both groups so that at the end of the season the general mobility parameters of athletes improve, making a training plan that combines the physical training with the technical-tactical necessary for their category. of age.

Regarding the first test, running speed over a distance of 20 meters, we could see a decrease in the time obtained by athletes from the initial test to the final, both male and female.

As can be seen in the previous tables, in the girls team there is an upward trend, slightly more pronounced than the boys team, girls generally obtaining better results than boys in the final test. This may be due to the different level of maturity at this age between girls and boys, who show an increased seriousness in training and a desire for self-improvement.

For boys, there were improvements in the time obtained in the 20-meter speed test, with variations between 3 tenths of a second and 16, while the girls team recorded improvements in the times obtained, with variations between 5 tenths of a second and 17.

In the second test, the run between cones with the change of direction of movement, can be seen in the previous tables, as in the case of the first test, a decrease in time obtained in the final test compared to the initial one, the group of girls was again with slightly better results in terms of evolution, compared to that of boys.

For the boys team, there were improvements in the time obtained in the race between cones, with variations between 2 tenths of a second and 85, while for girls team there were improvements in the times obtained, with variations between 11 tenths of a second and 72.

The third test, the vertical jump, registered increases in the length, both for girls and boys.

Unlike the two previous tests, in which the girls performed better from the initial test to the final one, in the vertical jump test it can be seen that the boys had a longer jump length than the girls from the beginningfact that was kept also at the final test.

However, the difference in the length of the vertical jump obtained after the two tests was mostly the same, with variations between 1 and 3 centimeters, both female and male. The advantage that boys have in this test comes from the initial testing in which they obtained mostly higher results than girls, which may be due to the considerably higher strength of the lower limbs.

Both boys and girls, registered improvements in the length of the vertical jump, with variations between 1 centimeter and 3.

In the last test, the fourth, raising the torso to 90 degrees from lying on their back for 30 seconds, there were increases in the number of repetitions, both for boys and girls.

Similar to the previous test, it can be seen in the previous tables that the boys obtained better results than the girls from the initial testing, achieving a larger number of abdominals. In the final test, even if the girls team managed some results higher than the boys, the maximum difference being 3 additional repetitions, compared to 2 as the boys recorded the maximum, however, most of the results for boys were higher than for girls.

These favorable results for the boys team may be due to the higher abdominal strength than the girls team.

For both boys and girls, there were increases in the number of repetitions in the final test, with variations between 1 and 3 repetitions in addition to the initial test.

Conclusions

Comparing the results obtained in the two tests, we could conclude that following the application of the training model proposed by the Romanian Basketball Federation, presented in chapter two, there was an improvement in general mobility, both among the boys team, as well as the girls one.

According to the characteristics of motor skills at the antepubertal age, which includes the two teams studied, boys and girls, there is an overflowing evolution of motor skills and motor learning capacity. Thus, by systematic repetition we managed to fix and develop their parameters so that there is an evolution between the two stages of testing.

In general, it could be observed that in the speed running tests and among the milestones, the girls had a better evolution than the boys, due to their perseverance and desire to evolve a little higher than them. Also, another reason for their results may be the fact that at this age group girls show an acceleration of growth due to puberty, registering a development of the whole body.

On the other hand, in the tests involving the strength of the muscles, the vertical jump and the abdominal strength, even if both categories registered an increase, the boys stood out with the higher number of repetitions or jumped centimeters. This was due to the abdominal strength and lower limbs having a higher level in the boys team.

Following the study carried out on the training model for the Minibasketball teams, we reached the following conclusions:

- The training process in Minibasketball is oriented towards the physical and technical training of the players;
- The training objectives aim at developing the motor capacity of the children and mastering the content of the training for this level;
- The Minibasketball training process aims at individual or collective achievements from a technical-tactical point of view.

References

1. Romanian Federation of Basketball, 2007. *The unitary conception of play and training on formative levels*, Bucharest: Printech Publishing House
2. Dragnea, A., Bota, A., 1999. *Theory of motor activities*, Bucharest: Didactic and Pedagogical Publishing House, R.A.
3. Gheorghe, I., 2015. *Theory of motor activities*, Bucharest: Romania of Tomorrow Foundation Publishing House
4. Gheorghe, D., 2005. *The theory of sports training*, Bucharest: Romania of Tomorrow Foundation Publishing House
5. Moanță, A. D. &., 2011. *Selection for performance sports*, Bucharest: Discobolul Publishing House
6. Popescu, F., 2010. *Basketball. Basic course*. Bucharest: Romania of Tomorrow Foundation Publishing House
7. Popescu, F., 2008. *Basketball. Walkaround.* Bucharest: Romania of Tomorrow Foundation Publishing House
8. Predescu, T., Ghițescu, G., 2001. *Basketball. Preparing performance teams*. Bucharest: Semne Publishing House