### ASSESSMENT OF MULTILATERAL PHYSICAL TRAINING LEVEL OF GYMNASIUM PUPILS THROUGH ATHLETICS POLYATHLON

#### **SCURT CORNELIU**

Physical Education and Sports, TRANSILVANIA University of Brasov, ROMANIA

#### Abstract

Multilateral physical training at gymnasium pupils level is a priority objective of education since it ensures a balanced and harmonious development of all motor qualities.

The formation of a wide background of motor skills that are specific to athletics by assimilating the techniques of running, jumping, tossing as well as by participating in competitions in both individual events and polyathlons creates the pre-conditions of orientation toward performance athletics practices of an increased number of pupils. The deficiencies ascertained regarding the level of physical preparation as well as in assimilating the athletics motor skills can be corrected through adequate action instruments during both physical education at school as well as in athletics class. By means of a multi-lateral physical training with a focus on speed and take-off, we will provide improved sports results at the athletics polyathlon events.

Key words: assessment, pupils, physical training, athletics polyathlon.

#### Introduction

The poor level of multilateral physical training and insufficient development of athletics motor skills along with decreasing numbers of sports practitioners opting for performance athletics as well as reduced participation in local competitions of athletics teams from county general schools (12) constitute arguments in favour of the **topicality of this approach**.

The hypothesis: we assumed that optimizing the planning of training of athletics polyathlon teams at gymnasium level would result in optimum multilateral physical training along with higher levels of athletics motor skills oriented toward performance athletics in both individual events as well as in polyatlon events, in accordance with the pupils' age. The research purpose consists in assessing the level of multilateral physical training along with athletics motor skills in association with an optimized planning for pupils' training in order to achieve higher performances and allow their orientation towards performance athletics practicing. The research was conducted during the county phase of the school athletics tetrathlon boys' team contest. After analyzing the results obtained by the members of the 12 teams participating from Braşov county, we found out that neither team succeeded in obtaining a number of over 1000 pts, the closest score being achieved by the pupils team from General School Zărnești, while the individual phase showed that a single competitor was able to achieve a score of in excess of 300 pts (315), namely C.M. from the General School Rupea (Annex 1), 12 competitors achieving in excess of 200 pts, while 6 pupils scored less than 150pts.

In the 60 m sprint race with crouch start were 48 participants: 3 pupils achieved a score of 85 pts with a performance better than 8.0 s, 14 pupils obtained results better than 8.7 s, evaluated at over 60 pts, while a number of 6 pupils reached a more 9.0s, the equivalent of 50 pts. In running long jump with 1 m marked take-off zone, three of the pupils succeeded in achieving jumps of over 5 m evaluated at more than 65 pts, 10 pupils succeeded in performing 4.5 m jumps evaluated at 50 pts, while a number of 10 competitors performed jumps below 4 m.In oina ball momentum toss, 2 competitors achieved tosses of over 60 m evaluated with over 70 pts, 20 succeeded in obtaining at least 50 pts the equivalent of 46.5 m, while 6 competitors placed themselves below the 40 m limit. In the 800 m endurance race, only 3 competitors obtained results better than 2'30" evaluated at 49 pts, 12 competitors attained results better than 2'40", while 12 competitors either failed to obtain results below 3' or abandoned.By correlating the obtained results, we conclude that the greatest number of points achieved by one team of all four events was obtained in at the 60 m sprint race (307 pts) with the highest average number of points achieved by the competitors (63.58 pts) in the sprint race. In the running long jump the greatest number of points is achieved by a single team (258 pts), while the average number of points referred to the number of competitors is 47.54 pts, 27 pts less than in sprint race. (Mihailescu, L,. 2006, Săvescu, I., 2007)The oina ball momentum toss showed an average number of points referred to the number of competitors of only 49.08 pts, a modest value for this category of age. The endurance race revealed an extremely poor level of performance and the highest rate of abandon (6) as well as the lowest average of points number referred to the total number of competitors (23.27 pts).

In order to optimize the training of pupils and participation athletics in polyathlon competitions as well as encourage orientation towards performance athletics practicing, we propose a training pattern which is supposed to eliminate the observed shortcomings (Table 1). The number of training sessions that must be attended by the athletes will be 1800 – 2000 during physical education at school and in athletics class over a number of 40 week cycles consisting of 4 - 6 training sessions every week.Knowing that endurance is the most neglected motor quality, we planned a total distance of 600 km of flat and bumpy ground racing, around 60 km/month between 14 to 16 km each week. Considering the oina ball toss, we have planned a number of 1000 attempts of which 600 with variable momentum and 200 with full momentum since the viewings performed during the competition have revealed an extremely unsatisfying level of assimilating the skills required by

oina ball toss. For the long jump, we planned 400 attempts with variable momentum and 200 attempts with full momentum since, for an acceptable level of the ascertained speed qualities, performances can be considerably improved and implicitly the number of points collected both individually by teams will increase as well.

#### **Conclusions:**

- Participation in the county phase of the school athletics tetrathlon has recorded an increased number of participants compared with the previous years, namely 12 teams and almost 50 competitors.
- 2. The pupils' training level was, in many cases unsatisfactory, with a great number of pupils who abandoned the endurance race event or the long jump event.
- 3. A great number of schools lack school athletic training classes, which is most frequently caused by the absence of a minimum of basic infrastructural facilities.

Table 1. Planning of the main training indicators

		AGE						
INDICATORS	Proposed Pattern							
	180-2000							
	40							
	Number of training	4-5						
	Long duration ra	600						
	Up to 60-80m	95%	70					
ss,	More than 80m	85%	30					
Distances, rhythms	More than 80m	80%	35					
Di.	More than 80m	22						
	Cross-country (km)	600						

Table 1. Planning of the main training indicators (continued)

AGE 12-15 years Boys										
INDICATORS										
	Proposed Pattern	230								
	hurdles	200								
Long jump (numbers)	with variable momentum	400								
	with full momentum	200								
0' 1 11 ( 1 )	without momentum	400								
Oina ball toss (numbers)	with momentum	600								
;	х									
Take-	4000									
Sport	34									
C	basic events 2-3									
Contests	other events	5								

### Recommendations

- 1. Planning of a sufficient number of lessons and means during the training phase in order to ensure the improvement of training quality especially in deficient events and motor qualities that are specific to athletics tetrathlon.
- 2. Pupils training and selection for performance athetics should be permanent, both during mandatory physical education lessons as well in school athletics classes.
- 3. Pupils should be encouraged to participate at least in 4-5 contests of which 2-3 in athletics polyathlon.

4. Organizing a basic infrastructure at school level and providing the minimum equipment necessary to create the conditions for athletics tetrathlon.

#### References

MIHAILESCU, L., 2006 "Atletismul în sistemul educațional", Edit. Universității din Pitești

SĂVESCU, I., 2007 "Educație fizică și sportivă școlară", Edit. Aius, Craiova.

COUNT	Y	V-VIII GRADE BOYS	S	PLACE:BRASOV 29.03 2010 TRACK LPS													
PHASE			ı		PLACE:BRAŞOV							010 T	_				
PLA					60 m	ump			Oina ball toss					Total	Total		
CE				Yr. of				Results			Results			800 m		ind	teams
		SCHOOL	grade	birth	result	pts.	1	2	p	ots.	1	2	pts.	result	pts.	pts.	pts.
1	C.G	ŞC.1 ZĂRNEŞTI	VIII	1996	8.0	86	4.65	5.18		73	52.0	X	58	02:31	56	273	
1	M.A	ŞC.1 ZĂRNEŞTI	VIII	1996	8.3	75	4.55	4.17		52	X	55.0	62	02:39	40	229	
1	D.M	ŞC.1 ZĂRNEŞTI	VIII	1995	8.4	71	4.37	4.18		47	X	59.0	68	02:37	44	230	
1	N.L	ŞC.1 ZĂRNEŞTI	VIII	1994	8.3	75	4.77	4.95		65	56.0	58.0	67	02:29	60	267	999
						307			2	37			255		200		
2	C.M	RUPEA	VIII	1996	7.9	89	5.48	5.32		82	60.0	56.0	70	02:23	74	315	
2	PW	RUPEA	VIII	1996	8.4	71	4.65	5.00		66	44.0	45.5	48	02:40	38	223	
2	S.B	RUPEA	VII	1995	8.6	65	4.72	4.87		62	49.0	X	53	02:53	19	199	
2	I.F	RUPEA	VIII	1994	8.7	61	4.43	4.31		48	X	44.0	46	02:45	30	185	922
						216			2	258			217		161		
																_	
3	M.D	L.T.FELDIOARA	VI	1995	8.4	71	4.60	4.90		63	42.0	X	43	02:35	46	223	
3	M.T	L.T.FELDIOARA	VIII	1997	8.5	68	4.30	4.70		56	53.0	X	59	02:39	40	223	
3	B.R	L.T.FELDIOARA	VII	1995	8.8	58	4.08	X		39	X	45.5	48	03:14	1	146	
3	S.A	L.T.FELDIOARA	VII	1996	8.5	68	4.70	4.20		56	X	55.0	62	02:37	44	230	822
						265			2	214			212		131		
4	B.I	ŞC.27 BV	VI	1994	7.8	93	4.50	4.20		50	38.5	39.5	40	02:38	42	225	
4	T.I	ŞC.27 BV	VIII	1994	8.7	61	4.70	4.43		57	54.0	55.5	63	AB		181	
4	O.S	ŞC.27 BV	VII	1995	8.4	71	3.86	X		35	X	39.5	40	02:3	42	188	
4	G.R	SC.27 BV	VI	1995	8.8	58	4.17	3.97		42	45.0	X	48	02:52	20	168	762
						283				184			191		104		
		I .		1	ı		1	<u> </u>	1	-				l	1	1	1

**COUNTY** 

**V-VIII GRADE BOYS** 

PHASE PLACE:BRAŞOV 29.03 2010 TRACK LPS 60 m Long jump Oina ball toss Total Total **PLA** CE Results Results 800 m ind teams Yr. of 2 2 **SCHOOL** grade birth result pts. result pts. pts. pts. pts. pts. C.G ŞC.1 ZĂRNEŞTI VIII 73 52.0 X 58 273 1 1996 8.0 86 4.65 5.18 02:31 56 SC.1 ZĂRNESTI 8.3 52 X 229 1 M.A VIII 1996 75 4.55 4.17 55.0 62 02:39 40 ŞC.1 ZĂRNEŞTI VIII 1995 71 4.37 47 X 59.0 68 02:37 44 230 D.M 8.4 4.18 SC.1 ZĂRNESTI VIII 1994 8.3 75 4.77 65 58.0 02:29 60 267 999 N.L 4.95 56.0 67 307 237 255 200 2 C.M **RUPEA** VIII 1996 7.9 89 5.48 5.32 82 60.0 56.0 70 02:23 74 315 2 PW **RUPEA** VIII 1996 8.4 71 4.65 5.00 66 44.0 45.5 48 38 223 02:40 2 53 S.B **RUPEA** VII 1995 8.6 65 4.72 4.87 62 49.0 X 02:53 19 199 2 44.0 30 I.F **RUPEA** VIII 1994 8.7 61 4.43 4.31 48 X 46 02:45 185 922 5 C.B L.T. ZĂRNEŞTI VIII 52 37 47.0 50 29 1996 9.0 3.95 3.70 46.0 02:46 168 L.T. ZĂRNEŞTI 5 L.A VIII 1996 9.3 44 4.28 4.33 46 44.0 45.5 48 02:42 35 173 5 M.R LT.ZARNESTI VII 1996 8.8 58 X 4.32 45 X 55.0 64 2.41 37 204 L.T. ZĂRNEŞTI 5 P.R VII 1994 8.8 58 X 4.38 47 49.0 48.0 53 03:01 10 168 713 212 175 214 111 A.E SC 9 BV VIII 1996 8.3 75 4.38 4.35 47 45.0 X 48 02:43 33 203 6 S.D SC 9 BV VIII 1995 8.9 55 4.23 4.59 53 45.0 47.5 51 03:01 10 169 6 6 N.C ŞC 9 BV VIII 1994 8.7 61 4.28 4.30 45 X 46.5 50 02:50 11 167 27 6 SC 9 BV VIII 1996 9.3 44 42 46.0 46.5 50 02:47 N.L 4.15 4.20 163 702 235 187 199 81 7 A.F SC.7 BV VI 1994 7.8 93 5.25 5.23 75 X X 02:30 49 217 7 P.M SC.7 BV VII 1994 9.4 41 3.27 3.40 26 33.0 38.0 38 03:02 9 114 7 ŞC.7 BV VII 1995 58 50 42.0 47 4 S.P 8.8 4.23 4.50 44.5 03:10 159 7 S.A SC.7 BV VII 1995 8.8 58 4.70 4.75 58 62.0 58.5 73 AB 189 679

COUNTY	Y	V-VIII GRADE BOYS		INDIV	IDUAL	ILINA	TILON										
PHASE	PHASE			PLACE:BRAŞOV							29.03 2	010					
PLA					60 m Long jump					Oina ba	ıll toss				Total	Total	
CE				Yr. of			Results				Results			800 m		ind	teams
		SCHOOL	grade	birth	result	pts.	1	2	pts	s.	1	2	pts.	result	pts.	pts.	pts.
1	C.G	ŞC.1 ZĂRNEŞTI	VIII	1996	8.0	86	4.65	5.18		73	52.0	X	58	02:31	56	273	1
1	M.A	ŞC.1 ZĂRNEŞTI	VIII	1996	8.3	75	4.55	4.17		52	X	55.0	62	02:39	40	229	i
1	D.M	ŞC.1 ZĂRNEŞTI	VIII	1995	8.4	71	4.37	4.18		47	X	59.0	68	02:37	44	230	İ
1	N.L	ŞC.1 ZĂRNEŞTI	VIII	1994	8.3	75	4.77	4.95		65	56.0	58.0	67	02:29	60	267	999
						307			23	7			255		200		
		1	_											_			
2	C.M	RUPEA	VIII	1996	7.9	89	5.48	5.32	8	32	60.0	56.0	70	02:23	74	315	i
2	PW	RUPEA	VIII	1996	8.4	71	4.65	5.00	6	56	44.0	45.5	48	02:40	38	223	İ
2	S.B	RUPEA	VII	1995	8.6	65	4.72	4.87	6	52	49.0	X	53	02:53	19	199	i
2	I.F	RUPEA	VIII	1994	8.7	61	4.43	4.31	4	18	X	44.0	46	02:45	30	185	922
						250			2	09			158		62		ı
			1			250	1	<u> </u>		0)		1	130		02		
8	B.A	L A. MUREŞAN	VI	1994	8.4	71	4.40	4.62	5	54	47.0	49.0	54	AB		179	
8	D.A	L A. MUREŞAN	VIII	1994	8.2	78	4.48	4.14	4	19	41.0	37.0	42	02:47	27	196	ı
8	T.C	L A. MUREŞAN	VII	1995	8.9	55	3.70	3.95	3	37	29.0	X	26	02:59	12	130	i
8	D.G	L A. MUREŞAN	VII	1994	8.9	55	3.92	3.88	3	36	40.5	39.0	42	02:49	24	157	667
						259			1	76			164		63		<u> </u>
		1	1	T.	ı		1	T T		Ī				ı	1	1	
9	A.G	ŞC.PURCĂRENI	VI	1995	8.6	65	3.70	4.10		12	58.0	43.0	67	AB		174	i
9	C.B	ŞC.PURCĂRENI	VII	1995	8.9	55	3.57	3.40	3	30	39.0	38.0	39	AB		124	i
9	O.R	ŞC.PURCĂRENI	VIII	1995	9.0	52	4.25	4.38		17	X	43.5	45	AB		144	ı
9	G.F	ŞC.PURCĂRENI	VIII	1995	8.8	58	4.32	4.25	_	15	37.0	34.0	36	02:40	38	177	619
						230			1	64			187		38		

**COUNTY** 

**V-VIII GRADE BOYS** 

PHASE PLACE:BRAŞOV 29.03 2010 TRACK LPS 60 m Long jump Oina ball toss Total Total **PLA** CE Results Results 800 m ind teams Yr. of 2 2 **SCHOOL** grade birth result pts. result pts. pts. pts. pts. pts. C.G ŞC.1 ZĂRNEŞTI VIII 73 52.0 X 58 273 1 1996 8.0 86 4.65 5.18 02:31 56 SC.1 ZĂRNESTI 8.3 52 X 229 1 M.A VIII 1996 75 4.55 4.17 55.0 62 02:39 40 ŞC.1 ZĂRNEŞTI VIII 1995 71 4.37 47 X 59.0 68 02:37 44 230 D.M 8.4 4.18 SC.1 ZĂRNESTI VIII 1994 8.3 75 4.77 65 58.0 02:29 60 267 999 N.L 4.95 56.0 67 307 237 255 200 2 C.M **RUPEA** VIII 1996 7.9 89 5.48 5.32 82 60.0 56.0 70 02:23 74 315 2 PW **RUPEA** VIII 1996 8.4 71 4.65 5.00 66 44.0 45.5 48 38 223 02:40 2 S.B **RUPEA** VII 1995 8.6 65 4.72 4.87 62 49.0 X 53 02:53 19 199 2 8.7 X 44.0 30 I.F **RUPEA** VIII 1994 61 4.43 4.31 48 46 02:45 185 922 10 SC.8 BV VIII 52 3.95 40 50 9 J.B 1996 9.0 4.08 47.0 36.5 03:03 151 10 I.I SC.8 BV VIII 1994 8.8 58 4.30 4.50 50 44.0 44.0 46 02:52 20 174 ŞC.8 BV 10 R.G VIII 1995 9.4 41 4.05 4.00 39 X 40.5 41 03:13 123 10 SC.8 BV VIII 1995 8.3 44 3.90 X 36 44.0 41.0 46 02:49 24 150 B.C 608 55 195 165 183 SC P.MĂRULUI P.A VIII 1996 8.7 X X 46.0 43.0 49 02:55 16 11 61 126 52 P.M SC P.MĂRULUI VI 1996 9.0 4.03 4.20 42 41.0 44.5 46 02:51 21 11 161 ŞC P.MĂRULUI 9.1 49 3.90 39 36.0 35 21 144 11 B.F VIII 1995 4.04 36.0 02:51 B.B SC P.MĂRULUI VII 1994 8.8 58 4.18 4.30 45 42.5 45.5 48 02:58 13 164 595 11 220 126 178 71 VI 12 L.R SC.HOGHIZ 1995 8.5 68 X 4.85 48.0 X 52 02:59 12 193 61 12 SC.HOGHIZ VIII 1996 8.8 58 4.17 3.95 41 47.0 49.5 53 02:02 9 161 B.A 12 U.A SC.HOGHIZ VII 1995 8.9 55 4.30 4.33 45 44.0 48.5 53 03:03 8 161 12 SC.HOGHIZ VII 9.2 46 40 B.V 1995 3.60 4.12 40.0 X 40 02:59 11 137 515

COUNTY	Y	V-VIII GRADE BOYS															
PHASE			PLACE:BRAŞOV						29.03 2	010	ΓRACK	LPS					
PLA				60 m		Long jump				Oina ba	ıll toss				Total	Total	
CE				Yr. of			Results				Results	Results		800 m	800 m		teams
		SCHOOL	grade	birth	result	pts.	1	2		pts.	1	2	pts.	result	pts.	pts.	pts.
1	C.G	ŞC.1 ZĂRNEŞTI	VIII	1996	8.0	86	4.65	5.18		73	52.0	X	5	02:31	56	273	
1	M.A	ŞC.1 ZĂRNEŞTI	VIII	1996	8.3	75	4.55	4.17		52	X	55.0	6	02:39	40	229	
1	D.M	ŞC.1 ZĂRNEŞTI	VIII	1995	8.4	71	4.37	4.18		47	X	59.0	6	02:37	44	230	
1	N.L	ŞC.1 ZĂRNEŞTI	VIII	1994	8.3	75	4.77	4.95		65	56.0	58.0	6	02:29	60	267	999
						307				237			255		200		
2	C.M	RUPEA	VIII	1996	7.9	89	5.48	5.32		82	60.0	56.0	70	02:23	74	315	
2	PW	RUPEA	VIII	1996	8.4	71	4.65	5.00		66	44.0	45.5	48	02:40	38	223	
2	S.B	RUPEA	VII	1995	8.6	65	4.72	4.87		62	49.0	X	53	02:53	19	199	
2	I.F	RUPEA	VIII	1994	8.7	61	4.43	4.31		48	X	44.0	46	02:45	30	185	922
						220				187			198		40		
		TOTAL PTS.				3052		_		2282			2356		1117		
		ARITH. AVERAGE				63,58				47,54			49,08		22,37		