

Planning and periodization in swimming: An example of a macrocycle for an adapted swimming group

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The planning of the training process is commonly recognized as a fundamental aspect for the correct and harmonious development of the capacities and to improve sports results. The aim of this paper was to present an example of a macrocycle of training in a group of adapted swimmers. The group includes 5 swimmers, being 4 male and 1 female: three swimmers with Down syndrome, one swimmer with intellectual disability and one swimmer with autism. The macrocycle of training was subdivided in 23 weeks: 15 belonging to the General Preparation Period, 4 to the Specific Preparation Period, 2 to the Competitive Period, culminating with the Winter National Championships, and 2 to the Transition Period trying. At the Winter National Championships, the most important competition of this macrocycle, these swimmers obtained 7 national titles, 4 national vice-champions titles and 2 third places. These results gave the swimmers an important incentive to keep up the good work.

Key words: swimming, periodization, disability swimmers

The Maia Swimming Club began its activity in 2000, and in the season 2007/2008 has accomplished the dream to constitute a group of adapted swimming, doing systematic training together, continuing for the season of 2008/2009. The Maia Swimming Club has, at this moment, five swimmers in these conditions, all of them with intellectual disability, who participate in competitions promoted by the National Association of Sport for the Intellectual Disability.

Methods

The group includes 5 swimmers, being 4 male and 1 female: three 16 year-old swimmers with Down Syndrome, being this a genetic disturbance caused by the presence of an extra 21 chromosome, total or partially; one 17 year-old swimmer with intellectual disability that results, almost all times, of a cerebral structure alteration, caused by genetic factors, in the intra-uterine life, to the birth or in the postnatal life; and one 12 year-old swimmer with autism, that we can define as a neuropsychiatric disturbance that presents a great variety of clinical expressions and as being the result of multifarious dysfunctions of the development of the central nervous system, affecting the person's ability to communicate, to establish relationships and to answer adequately to the environment.

Results and Discussion

The planning of the training process in Swimming is unanimously recognized as a fundamental aspect for the correct and harmonious development of the capacities and, consequently, of the swimmer's results (Fernandes, Morouço, Querido & Santos-Silva, 2003).

Table 1. Percentages of the specific training areas and technique work in training volume function

		Microcycles											
		1	2	3	4	5	6	7	8	9	10	11	12
Specific training areas (% Vol.)	Ca1	100%	89,2%	63,6%	69,1%	63,6%	69,2%	67,3%	73,1%	85,5%	79,3%	89,2%	58,9%
	Ca2			26%	21,8%	31,2%	29%	27,6%	17,3%	9,1%	12,8%	8,4%	36,8%
	Pa			5,2%	7,3%		1,8%		7,7%		2,2%		
	TI							3,4%		3,6%	3,9%	2,4%	2,1%
	Vel		10,8%	5,2%	1,8%	5,2%		1,7%	1,9%	1,8%	1,8%		2,2%
	TT	51,3%	36%	26%	33,6%	20,8%	33,3%	25,9%	30,8%	47,3%	30,9%	35,4%	28,2%
		13	14	15	16	17	18	19	20	21	22	23	
Ca – Aerobic capacity	Ca1	71,4%	61%	69,5%	69,1%	68,8%	75,7%	79,9%	85,9%	89,1%	93%	83,5%	
Pa – aerobic power	Ca2	21,2%	32,4%	28,6%	17,4%	21,2%	14,8%	12,5%	8,4%	6,5%	5,2%	10,4%	
TI – lactic tolerance	Pa	2,9%			4,7%	3,4%	2,6%	1,8%	2,4%	1,7%		2,8%	
Vel – Speed	TI	3,1%			8,8%	5,2%	4,9%	5,8%	2,3%	1,2%			
TT – technique work	Vel	1,4%	6,6%	1,9%		1,4%	2%		1%	1,5%	1,8%	3,3%	
	TT	38,2%	29,8%	28,3%	32,8%	20,7%	22,7%	25,4%	28,3%	20,8%	35,8%	32,4%	

For the adapted swimming case, this situation shouldn't be different. Added to this specific task, where are several factors to consider, there is the fact of working with a specific group, heterogeneous at the level of the intellectual capacities, understanding the tasks, number of trainings a week and, also, the competitive level.

Like this, we intended with this exhibition to summarize the fundamental aspects of the year planning used for this specific group, presenting the conception and structure of 1st Macrocycle of training, which was subdivided in 23 weeks, being 15 belonging to the General Preparation Period, 4 to the Specific Preparation Period, 2 to the Competitive Period, culminating with the Winter National Championships, and 2 to the Transition Period trying, this way, to clarify a process that is still quite obscure in the national structure for this modality (tables 1 and 2).

At the Winter National Championships, the most important competition of this macrocycle, Maia Swimming Club swimmers obtained 7 national titles, 4 national vice-champions titles and 2 third places. These results gave the Maia Swimming Club swimmers an important incentive to keep up the good work.

Table 2. Microcycle training volume, training periods and training mesocycles

	Microcycles											
	1	2	3	4	5	6	7	8	9	10	11	
Volume/microcycle	1950 m	2775 m	3850 m	5500 m	3850 m	5700 m	5800 m	5200 m	5500 m	5900 m	4800 m	
General Prep. Period												
Specific Prep. Period												
Competitive Period												
Transition Period												
Mesocycle	1 st Mesocycle				2 nd Mesocycle							
	12	13	14	15	16	17	18	19	20	21	22	23
Volume/microcycle	5600 m	5600 m	6000 m	5200 m	5900 m	6200 m	6300 m	5900 m	5100 m	4400 m	3800 m	3900 m
General Prep. Period												
Specific Prep. Period												
Competitive Period												
Transition Period												
Mesocycle	3 rd Mesocycle				4 th Mesocycle				5 th Mesocycle			

References

Fernandes, R., Morouço, P., Querido, A., & Santos-Silva, J.V. (2003). Operacionalização de um macrociclo de treino para nadadores jovens. *Livro de Resumos do 26º Congresso Técnico-Científico da Associação Portuguesa de Técnicos de Nataçã e 8º Congresso Ibérico – 25 e 26 de Abril de 2003*. Estoril, Portugal: Edições APTN.