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## Assess the status of professional endurance of female Rowing regatta in national youth team at Danang National Sports Center

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### Abstract

In Rowing, racing, the athlete must control the boat legally and compete to overcome all obstacles in weight, water and wind resistance... to achieve the highest performance. This shows that the athlete must have a good physical level, especially a level of professional endurance, to overcome drag in the long run. As such, endurance is a very important physical quality and directly affects the performance of Rowing athletes.

**Keywords:** Professional strength, National Sports Training Center Da Nang, current status

### Introduction

Rowing is one of the races of the Boat Race in Vietnam, the sport industry is determined to be a key Olympic sport belonging to the group that is preferred investment with a target medal in the Sea Games, Asiad, and Olympic.

This is confirmed through the advancement of rowing yachts through precious medals in recent Seagames. However, in many ways, the Vietnam rowing boat racing was also appreciated in the young, the achievement is much weaker in Asia and the world Because nowadays world boat racing has grown at a very high speed and the level of Vietnamese athletes is low. In fact, due to the many causes of impact that have influenced the achievement of the home water Boat Race, and one of the predominant causes is the specialized endurance of Vietnamese rowing athletes who are limited, therefore, the research builds exercises to develop the professional endurance for women athletes Rowing National youth team at Da Nang National Sport Training Center is urgent problem.

### Research Methods

The research process uses the following methods: Analyse and synthetic document; observe pedagogy; check pedagogy; experiment pedagogy; mathematical statistics.

### Results of research and Discussion

#### 1. Current situation of using exercises to develop professional endurance, the situation of using mass in intensity areas, the situation of percentage of endurance in training stages of the rowing team racing coaching team at the Danang National Sports Training Center

By method synthetic materials and finding out the training plan of rowing boat race at the Danang National Sports Training Center, the thesis has synthesized the situation of using professional endurance exercises for Rowing boat race athlete at Danang National Sports Training Center. The results are presented in the table: 1.2.3.

The table 1,2,3 shows that: The coaches of the sailing team allocate the percentage of training of general endurance and professional endurance is not reasonable. According to Ernest W. Maglischo (1993), in the preparation stage, the general strength is 70%, the professional strength is 30% and in the professional preparation stage, SBC accounts for 50%, professional endurance accounts for 50%, the last part is SBC 40% and professional endurance accounts for 60%.

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**Table 1:** Current situation of using main groups of exercise to develop professional endurance training for boaters of Danang National Sports Training Center coaches

No.	The main exercise groups	The main exercise groups	A break	% Workout/year rate	Number of participants
1	Group of aerobic endurance training exercises (End-1)	40×100m	R: 30''	12%	10
		10×500m	R: 20''	18%	10
		30×250m	R: 15''	19%	10
2	Group of anaerobic threshold training exercise (End-2)	60×50m	R: 15''	11.5%	10
		10×300m	R: 20''	9%	10
		8×400m	R: 30''	8.5%	10
3	Group of training exercises VO <sub>2</sub> max (End-3)	15×100m	R: 45''	5%	10
		4×400m	R: 1'	3%	10
		2×800m	R: 2'	2%	10

**Table 2:** Current situation of using the volume of boat racing in intensity areas to train athletes' development of professional endurance of trainers at Danang National Sport Training Center

No.	Intensity areas	% Workout/year rate	KM Boating/year
1	Group of aerobic Endurance training exercises End-1, Lower pulse 150time/minute	50%	1066km
2	Group of aerobic capacity training exercises End-2, Lower pulse 150-180 time/minute	32%	656km
3	Group of training exercises VO <sub>2</sub> max, pulse 180-190 time/minute	18	369km
Total			= 2050km

**Table 3:** Status of percentage (%) of resistance in all of the training stage for rowing athletes of national youth teams.

Result Stage	Professional endurance		General endurance	
	Km	%	Km	%
General preparation	270/1350	20%	1080/1350	80%
Professional preparation	184.5/615	30%	430.5/615	70%
Competition	34/85	40%	51/85	60%

## 2. Select the tests to assess the professional endurance level of female rowing boat races for the national youth team at the Danang National Sports Training Center.

On the basis of the theoretical research on the topic of advancement has used the interview method and relies on the theoretical and Choice principles, The practical basis of

selecting the test simultaneously to ensure the scientific significance in the selection of a professional strength development assessment test for female athlete rowing The topic performs a correlation coefficient between two tests on the subject, 10 female athletes rowing of the National youth team.

**Table 4:** Results of two interviews to select the tests to assess the endurance level of female Rowing boat race athletes of the national youth team at Danang National Sports Training Center. (n = 30)

No.	TEST	1st interview results			2nd interview results			Compare	
		Use	Useless	Do not use	Use	Useless	Do not use	X <sup>2</sup> <sub>board</sub> = (5,991)	P
1	TT 2500m (s)	28	2	0	28	1	1	1.14	>0.05
2	TT 4000m (s)	27	1	2	26	2	2	2.72	>0.05
3	VO <sub>2</sub> max (ml/kg/minute)	27	2	1	27	2	1	2.22	>0.05

Through table 4 shows through 2 interviews with test X<sup>2</sup><sub>survey</sub> < X<sup>2</sup><sub>board</sub> (with freedom is 6 - 3 = 3) at the probability threshold p = 0,05, proving that the interview result between 2

times is no difference, the selected tests are objective and allow use in the topic.

**Table 5:** The reliability test results of the professional endurance level assessment tests of female athletes rowing at the Da Nang National Sports Training Center (n = 10)

No.	TEST	1st		2 <sup>nd</sup>		r	P
		$\bar{X}$	$\sigma$	$\bar{X}$	$\Sigma$		
1	Rowing single 2500m (s)	629	5.39	631	5.21	0.86	<0.05
2	Rowing single 4000m (s)	1161	6.70	1157	6.84	0.83	<0.05
3	VO <sub>2</sub> max (ml/kg/minute)	53,90	1.24	53.81	1.19	0.81	<0.05

The table 5 results show that all selected tests through 2 interviews ensure the necessary reliability (r > 0,8 with P < 0,05)

Thus, over the results of the above analysis, 03 tests that the topic of choice has ensured the basis of reasoning and practicality, guaranteed reliability and high alert to assess the endurance of female athletes Rowing boats at the Da Nang National Sports Training Center.

**3. Assess the actual endurance of female athletes rowing the National youth team at the Da Nang National Sports Training Center:** In order to assess the actual endurance of the female athlete rowing boat by the method of interviewing have picked up 3 tests to assess the real strength of the female athlete rowing race. Test rowing single 2500m(s), test rowing single 4000m (s), test VO<sub>2</sub>max(ml/kg/minute). Results are presented in the following table.

**Table 6:** Achievement of the 2500m women's single rowing test of rowing boat races in 2017.

No.	Full name	Achievements (s)	Pulse (time/minute)	Average force (minute/500m)
1	Nguyễn Mai Anh	620	172	2 minute 04s
2	Phùng Thị Ái	622	176	2 minute 04,4s
3	Nguyễn Thị Kim Huyền	626	177	2 minute 05,2s
4	Vi Thị Hương	633	178	2 minute 06,6s
5	Phạm Thị Huyền	640	175	2 minute 08s
6	Nguyễn Thị Hà	619	174	2 minute 03,8s
7	Võ Thị Thúy Ngân	643	178	2 minute 08,6s
8	Trần Thị Kiệt	618	173	2 minute 03,6s

**Table 7:** Achievement of the 4000m women's single rowing test of rowing boat races in 2017.

No.	Full name	Achievements (s)	V (minutes/500m)	Circuit 10 seconds	Check the frequency of rowing rhythms for 1 minute between 500m segments						
					500 (m)	1000 (m)	1500 (m)	2000 (m)	2500 (m)	3000 (m)	3500 (m)
1	Nguyễn Mai Anh	1152	2min24.0	27	26	26	25	24	22	20	18
2	Phùng Thị Ái	1153	2min24.1	28	26	26	25	24	23	21	18
3	Nguyễn Thị Huyền	1157	2min24.6	29	27	27	26	25	22	20	17
4	Vi Thị Hương	1159	2min24.8	28	26	26	25	24	23	21	19
5	Phạm Thị Huyền	1163	2min25.3	27	25	25	24	23	20	20	18
6	Nguyễn Thị Hà	1164	2min25.5	28	27	27	26	25	24	22	18
7	Võ Thị Thúy Ngân	1160	2min25.0	25	26	26	25	24	23	21	18
8	Trần Thị Kiệt	1165	2min25.6	26	27	27	26	25	23	21	17
9	Trịnh Bích Phương	1169	2min26.1	27	28	28	27	26	24	22	19
10	Nguyễn Thị Uyên	1170	2min26.2	28	25	25	24	23	22	20	19
	Medium	1161	2min25.1								

**Table 8:** Test results of VO2max index of female rowing boat race athlete at Danang National Sports Training Center in 2017.

No.	Full name	Height cm	Weight kg	Power tier 1	Heart rate	Power tier 2	Heart rate	Vo2max (ml/kg/ minute)	Evaluate
1	Nguyễn Mai Anh	162	53	50	124	90	172	56.8	Good
2	Phùng Thị Ái	164	52	50	119	90	176	52.5	Good
3	Nguyễn Thị Huyền	164	53	50	123	90	177	54.2	Good
4	Vi Thị Hương	165	52	50	113	90	178	53.9	Good
5	Phạm Thị Huyền	159	49	50	125	90	177	55.6	Good
6	Nguyễn Thị Hà	161	49	50	127	90	175	55.2	Good
7	Võ Thúy Ngân	170	55	50	128	90	176	52.7	Good
8	Trần Thị Kiệt	171	56	50	120	90	178	51.8	Good

Through the above 3 tables, see: Achievements of female athletes in the National Athletic Training center in Da Nang with a pulse of 172-178 time/minute. The average speed of the female athlete after sailing is 500m is 2 minutes 04 seconds. Compared to other athletes in the world, the pulse rate is not much different, but the performance and speed have a big difference. The average female speed after traveling for 500m is 2 minutes 4 seconds. According to the document in "The Complete Rowing" of Hanoi Publishing House in 2000, the 500m rowing speed index of female Athletes in the world is 1 minute 50 seconds. Thus, the speed of the athletes racing national youth teams is still low compared to the athletes in the world.

The level of the athlete's physical strength is unsecured, the frequency of the swimming movement is not yet stable during the sprint period, resulting in limited achievement. Besides, there are no female athletes who have VO2max value very good.

### Conclusion

The situation of using professional strength development exercises, Actual volume usage in the areas of intensity, The status of % strength in the training phases of the rowing boat crew at the Da Nang National Sports Training Center. The boat crew COACHES distributed the overall endurance training rate and professional endurance are not yet reasonable. On the basis of a selection of professional strength assessment tests, The topic has surveyed the real-life strength of female athletes rowing the National youth team. The

survey results show that the qualification of the female endurance athlete of the youth team of Da Nang National Sports Training Center is limited.

In the course of research the topic has been selected with 3 Tests to ensure reliability and notification is: test rowing single 2500m (s), test rowing single 4000m(s), test Vo2max relative (ml/kg/minute)

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