

The Experience of Competitive Mesocycle Organization in Junior Mini-Golf

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Abstract—The article considers the aspects of competitive mesocycle organization in junior mini-golf. On the basis of the results of statistical observations over junior athletes during competitive seasons 2018-19 we defined an effective content of competitive mesocycle, which includes 6-7 weekly supplying competitions. It was proved that the effectiveness of competitive mesocycle organization with 6-7 weekly supplying competitions is 70-80% during pedagogically important sports results increase.

Keywords—*peak of sports fitness; competitive readiness; adaptation; super-compensation; athletes; mini-golf; mesocycle.*

I. INTRODUCTION

Peak of fitness achievement for the main start of the season is one of the main objectives of sports training. Depending on the amount of the main competitions in the season this objective is solved by means of pre-competitive micro-cycles of different content alternation [1, 3, 5, 6]. One of necessary conditions for the peak of fitness achievement is the number of supplying competitions [4].

II. LITERATURE REVIEW

In the work by S.E. Pavlov [5] it is stated that the peak of sports fitness in swimming is achieved during the 6-7th week of the competitive mesocycle. In the work by A.V. Voronkov [2] it is stated that the most effective interval between the competitions is 1,5 or 2 weeks. In jumping kinds of athletics the stage of sports fitness development for the main start is 4-6 weeks, 2 control competitions and 2-3 competitions with a high level of competitiveness [7, 8, 9].

Thus, the duration of sports fitness development for the main start in cyclic kinds is within the limits of 6-10 weeks, in speed-power – 4-8 weeks.

In junior mini-golf season includes two peaks: an athlete should achieve the peak of fitness twice. First for the Championship of Russia, which is the main and qualifying start for junior national team formation and is held at the end of June, and secondly for the International competition (Championship of Russia or World Championship among juniors, which is held at the beginning of August). Till now the Championship of Russia was held during the first decade

of May and young athletes didn't have enough time to prepare for it, as they didn't have the opportunity to train outside on the grounds covered with snow. As a result, the athletes, first of all, didn't achieve the peak of fitness by the time of the Championship of Russia beginning, and secondly, because of a long-term break between the main starts, lost their sports readiness by the time of the International competition.

The effectiveness substantiation of competitive mesocycle organization, which includes 6 supplying weekly competitions for the peak of fitness achievement by the time of main starts beginning.

III. RESEARCH METHODOLOGY

During the research we considered the statistical data concerning the effectiveness of the game at the Championship of Russia in 2018 and 2019. The athletes of the control and the experimental groups took part in the supplying starts every week at the stages of the Cup, Championship and the Championship of Samara region and also in the Championship of Moscow in mini-golf.

Comparative characteristic of the received results was realized by statistical methods using the package of complex analysis programs Stadia8.0/prof. In general 1710 initial results were handled.

IV. RESULTS

Table 1 presents the results about the amount of supplying competitions (played rounds), the results of the 1st and the main competition in the competitive mesocycle. As it is seen from the results, presented in this table, the results of 8 from 11 athletes improved, the results of one athlete almost didn't change and the results of two athletes became worse. Thus, the effectiveness of the used methodology is almost 73%. At the same time, the average amount of the supplying starts in the studied sampling of athletes was 7 and the average amount of the played rounds was 32.

The medians of the results comparison of the 1st and the main starts in the studied sampling using the criteria of the signs for the pair results ($p=0,05$) helps to set the validity of the hypothesis: "There are differences between the medians of

the sampling”, which proves statistically considerable increase in sports results.

TABLE I. PARAMETERS OF COMPETITIVE MESOCYCLE AND THE RESULTS OF THE FIRST AND THE MAIN START

№№ athletes	Number of starts	Number of rounds	Result 1 st start	Result the main start	Difference
1	9	42	23,38	24,33	-0,95
2	8	38	25,75	23,75	2,00
3	8	38	24,50	25,42	-0,92
4	8	38	26,38	25,83	0,55
5	7	34	24,75	22,75	2,00
6	7	34	24,50	24,67	-0,17
7	7	34	28,12	27,25	0,87
8	7	34	26,63	25,67	0,96
9	6	30	33,00	30,70	2,30
10	4	22	25,00	24,00	1,00
11	3	12	29,88	26,50	3,38

Typical kind of sports results change depending on the number of the start is presented in picture 1. It means that in the 1st and the 3rd start of the competitive season 12% of the respondents had high results within the range 22,7-24,4 strikes in a round, in the 6th start of the competitive mesocycle the number of such athletes was 38 %.

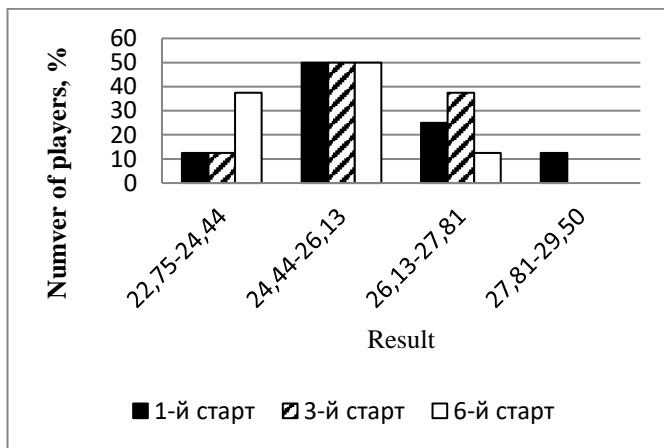


Fig. 1. The dynamics of sports results depending on the number of start

Table 2 presents the average results of the respondents from CG and EG, showed by them during the Championship of Russia in 2018 and 2019.

TABLE II. THE RESULTS COMPARISON OF THE CONTROL AND THE EXPERIMENTAL GROUPS IN 2018 AND 2019 ARE PRESENTED IN TABLE II

№	CG			№	EG		
	2018	2019	Differenc e		2018	2019	Differenc e
1	26,3	24	-2,3	1	25,8	22,8	-3
2	29,6	26,8	-2,8	2	28	24,3	-3,7
3	28,7	30,7	2	3	25	24,7	-0,3
4	31,7	26,5	-5,2	4	26,4	27,8	1,4
5	37,3	28,4	-8,9	5	24,9	23,8	-1,1
6	23,8	22,8	-1	6	25,7	25,4	-0,3

7	25,8	24,5	-1,3	7	26,9	25,7	-1,2
8	25,1	25,4	0,3	8	42,5	37	-5,5
9	26,3	31,3	5	9	31,7	25,8	-5,9
10	28,8	25,5	-3,3	10	29,5	24,6	-4,9
Average	28,3	26,5	-1,75	Average	28,6	26,1	-2,45
	4	9			4	9	

Regardless of the fact that with the help of Student t-test we defined the validity of the hypothesis: “there are no differences between the sampling average differences of the results of 2018 and 2019 in the CG and the EG” in terms of statistical validity $p=0,3$ it is obvious that the results in CG increased only among 7 from 10 athletes, in the EG the results improved among 9 athletes. Moreover, the average results increase in CG was 1,75 strikes in a round, in the EG- 2,45 strikes. Thus, regardless of statistically valid differences absence in the average results of CG and EG, the received real results increases in EG are pedagogically significant, both according to the frequency of their appearance in a sampling and according to an absolute volume.

V. CONCLUSION

As a result of the held research it was stated that the effectiveness of the used methodology was 73%. At the same time, the average amount of the supplying starts in the studied sampling of athletes was 7 and the average amount of the played rounds was 32.

The indirect verification of competitive mesocycle effectiveness with the series of weekly supplying competitions is a successful performance of junior national team at the Championship of Europe 2019 (Liepaja, Latvia). During this competition, for the first time in the history of Russian mini-golf, three prizes were taken in a team competition and two silver medals were taken in individual competitions.

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