



How to improve CISM shooting scoring system?

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INTRODUCTION

Shooting is one of the oldest and the most popular CISM sport event. Due to this, its further development should be facilitated, including the rules. Moreover, the differences between ISSF and CISM shooting events have to remain.

METHODS

analysis of data.

RESULTS

According to the shooting rules, electronic scoring targets or electronic paper target scoring machines are used for results scoring [1, 2]. These systems allow to measure results in decimal ring value (e.g., 10.5, 9.7, etc). Decimal scoring (DS) applies in 10m Air Rifle, 50m Rifle Prone (CISM event), and in the finals. In all other shooting events, full ring scoring (FS) is applied. For this reason, there is the need to evaluate the same overall results if FS is used which is very common especially in CISM events because no finals are held in it. In this case, inner tens and the best last series score are used to determine the winner. The use of DS could better evaluate shooter's skills. For instance, results 9.0 and 9.9 in FS are evaluated equally and in DS the difference is nearly a point. Furthermore, 10.0 and 9.9 results require almost equal skills from shooter and are evaluated more correctly by DS. In FS, the difference between 10.0 and 9.9 will be a point. Several 9.9 can occur during the competition and the shooter could lose his chance to win a medal, because of FS.

DISCUSSION AND CONCLUSION

We found that shooters that did not become the medallists when FS had been used could become even a winner if we recalculate results with DS. The usage of DS in all CISM shooting events that is technically possible could improve the evaluation of shooters' skills, in contrast to ISSF scoring.

PRACTICAL IMPLICATIONS

REFERENCES

Callegari-Jacques S. Bioestatística: princípios e aplicações. Porto Alegre: ArtmedEditora; 2009 CISM - Conseil International du Sport Militaire. Military Pentathlon Regulations, 2020. Available at: <http://www.milsports.one/sports/military-pentathlon>. Accessed: march 17, 2021.

FIGURES AND TABLES

Table 1 – Military Pentathlon Disciplines' results and their correlations to final championship standing.

Military Pentathlon Disciplines	Median 1 st – 3 rd quartile	Correlation coefficient*	Correlation strength
Shooting – slow fire (points)	96 95-98	-0.31	Regular
Shooting – rapid fire (points)	93 89-96	-0.39	Regular
Shooting (PP)	1064.55 1035.23-1088.25	-0.42	Regular
Obstacle run (PP)	1085.05 1027.48-1118.993	-0.65	Strong
Obstacle swimming (PP)	1082.80 1040.20-1122.40	-0.62	Strong
Throwing – precision (points)	116 108-124	-0.53	Regular
Throwing – distance (points)	54.85 50.80-59.83	-0.40	Regular
Throwing (PP)	1005.80 963.50-1053.20	-0.59	Regular
Cross country (PP)	1041.60 972.85-1080.48	-0.58	Regular

PP – Pentathlon points

*Spearman correlation test

CONFLICT OF INTEREST

The authors have no conflict of interest to declare.