

Professional activities of an Olympic martial sports trainer

Authors' Contribution:

A - Study Design
B - Data Collection
C - Statistical Analysis
D - Manuscript Preparation
E - Funds Collection

Zbigniew Bujak^{1ABCE}, Dariusz Gierczuk^{1BDE}

¹ Faculty of Physical Education and Sport in Biala Podlaska

Abstract. The aim of the study was to determine the importance of basic professional activities of a trainer in Olympic martial sports, defining the differences between trainers' opinions and discovering the main groups of activities characteristic for a given martial sport. *Methods and Resources.* Opinions of 37 trainers with many years of experience in boxing (n=11), Olympic taekwondo (n=13) and wrestling (n=13) were collected via a questionnaire composed of 20 activities, to which respondents allocated a rank from 1 to 4. *Results.* The most important activities of an Olympic martial sports were managing the technical, tactical and physical preparation of a trainee. Boxing and taekwondo trainers' opinions were very alike (rsp=0.78; p<0.001). On the other hand, the greatest discrepancies between views were found in taekwondo and wrestling trainers (rsp=0.01; p>0.05). The most important professional activities created various clusters depending on the specifics of a martial sport. *Conclusions.* Hierarchization of the basic professional activities of a trainer showed consistency in the most important ones, and discrepancies between those defined as less important. Opinions of the trainers in sports similar in terms of the combat techniques were similar. Three martial sports trainers differed in the way they perceived the importance of directing their trainees during sports competitions. The groups of professional activities of a trainer differ between boxing, taekwondo and wrestling.

Keyword: boxing, taekwondo, wrestling, professional activities of a trainer

INTRODUCTION

In today's sport, having the status of an Olympic discipline is nobilitating, but at the same time requires continuous seeking optimum training solutions. It requires from the trainers to constantly upgrade knowledge, skills of inductive and deductive reasoning, courage for experimenting with the training technology. Combat sports were the essence of Olympic struggle for ages, because of their utilitarian values and emotions accompanying sports fights. The historical training methods not always meet the requirements and expectations of the 21st century people. All trainers' activities in a longstanding training process may be defined by 20 basic professional activities. The group of activities was developed nearly 30 years ago [1], but it still remains valid. Combat sports, though classified into one group because of their rivalry characteristics, differ substantially by combat techniques, tactics and the profile of motor preparation [2,3,4,5,6]. There are approx. 300 variations of hand-to-hand combat worldwide, and among them are sports with the Olympic status. Competing at the highest level requires optimal measures for developing the highest physical form in a defined timeframe. Professional

activities of a trainer are of various importance, and learning their structure enables more thorough planning of the training process, as well as rational problem solving. Professional activities and expertise of trainers were surveyed by Bujak i wsp. [7,8], Januszewski and Sterkowicz [9], Sterkowicz [10,11], Sterkowicz i wsp. [12].

The aim of their research was to determine the importance of specific professional activities of boxing, taekwondo and wrestling trainers, discovering the differences in opinions between trainers in totally distinct combat sports, and classifying the main groups of professional activities that characterize a particular combat discipline.

METHODS

Opinions of boxing (n=11), Olympic taekwondo (n=13) and wrestling (n=13) trainers were collected - tab.1. Respondents had many years of experience as trainees (from 10 to 19 years), were experienced as trainers (7-12 years) and had documented successes of their trainees.

Table 1. Characteristics of respondents (n=37)

Variables	Boxing (n=11)	TKDO (n=13)	Wrestling (n=13)
	Average ± SD	Average ± SD	Average ± SD
Age (year)	35.9 ± 11.5	30.3 ± 7.1	39.6 ± 7.6
Experience as trainees (years)	9.8 ± 5.4	16.8 ± 7.6	18.9 ± 6.7
Experience as trainers (years)	9.5 ± 6.9	6.8 ± 5.2	11.5 ± 5.5

A questionnaire developed by Tumanian [1] and modified by Sterkowicz et. al. [9] was used. The questionnaire contained a list of 20 basic professional activities of a trainer, to which respondents allocated ranks 1 to 4, where 1 is very important, 2 - important, 3 - less important and 4 - unimportant.

For the analysis, selected statistics were used: median values were calculated, standard deviation (SD), weighted average for each activity arranging them on a positioning scale (cv), similarities in opinions were measured by calculating the Spearman's rank correlation coefficient (rsp), groups of activities were determined with the use of cluster analysis by Ward's Method.

List of 20 basic professional activities of a trainer includes:

1. Managing physical preparation
2. Managing tactical preparation
3. Managing technical preparation
4. Managing volitional preparation of trainees
5. Managing theoretical preparation of trainees
6. Managing trainees during competitions
7. Controlling a training process and the state of a trainee's body
8. Supervising the progress of trainees at school
9. Organising and refereeing competitions
10. Organising sports camps
11. Organising educational work in a group
12. Organising the process of recovery and relaxation
13. Planning the process of preparing trainees

14. Improving the trainees' propriety
15. Conducting scientific and methodological research
16. Keeping record and reporting
17. Recruiting and selecting candidates to training groups
18. Preparing instructors and referees
19. Solving organizational problems related to training
20. Providing first aid

RESULTS

According to the opinions of boxing trainers, the most important professional activities are three types of trainee preparation: technical (rank 1), tactical (rank 2) and physical (rank 3). As the least important respondents ranked preparing instructors and referees, organizing and refereeing competitions and keeping records and reporting (figure. 1). Respondents were unanimous in judging the importance of technical preparation (cv=0%), but allocated totally distinct ranks for managing the theoretical preparation of a trainee (cv=56%).

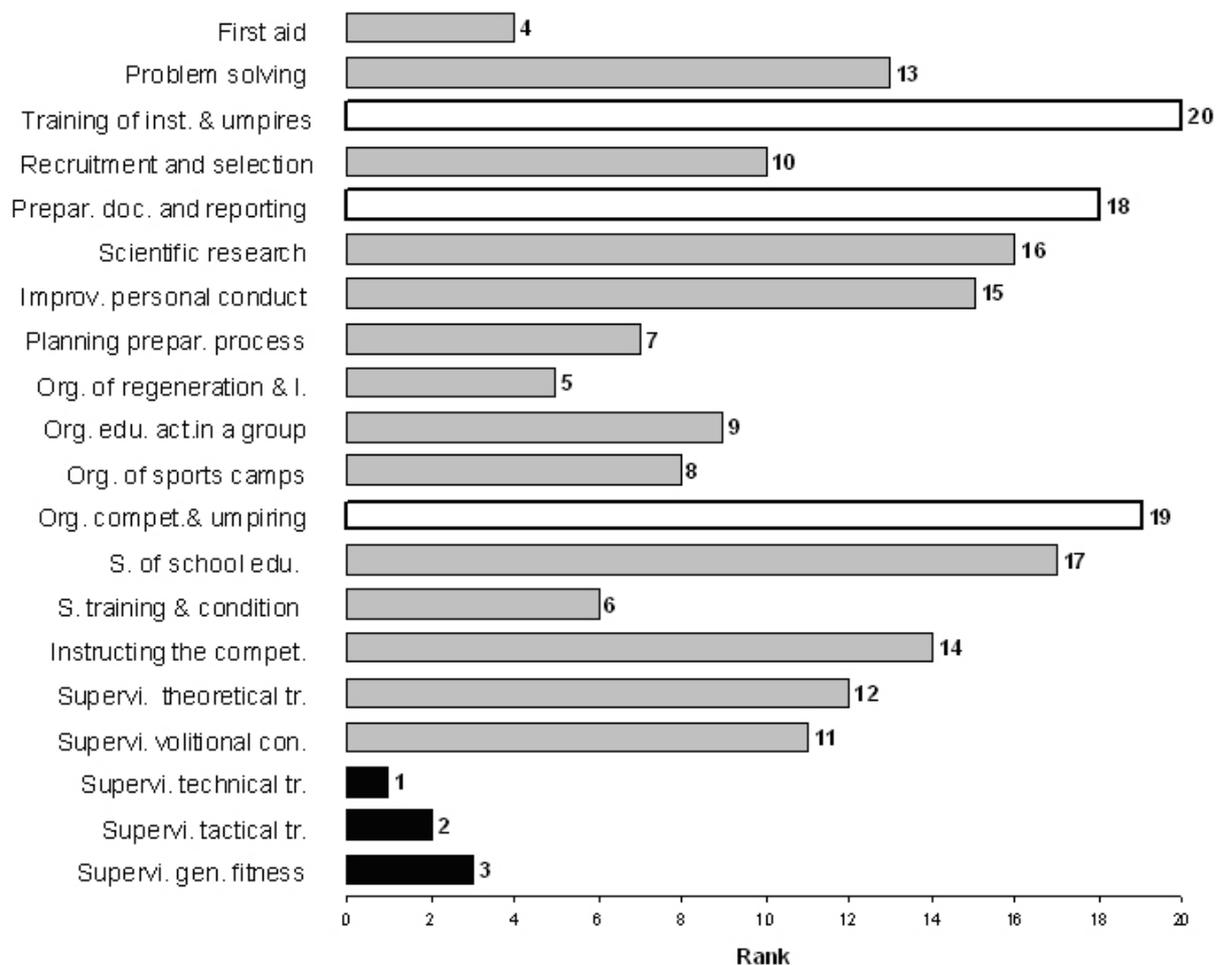


Figure 1. The importance of professional activities of a boxing trainer

Taekwondo trainers ranked managing the tactical preparation of a trainee as the most important in training process (figure. 2). Equally important was managing the technical and physical preparation. The least important was organizing and refereeing sports competitions (rank 19) and supervising the progress of trainees at school (rank 18). The smallest differences in trainers' opinions were in organizing and refereeing competitions (cv=23%), but the greatest differences were found in theoretical preparation of trainees (cv=41%).

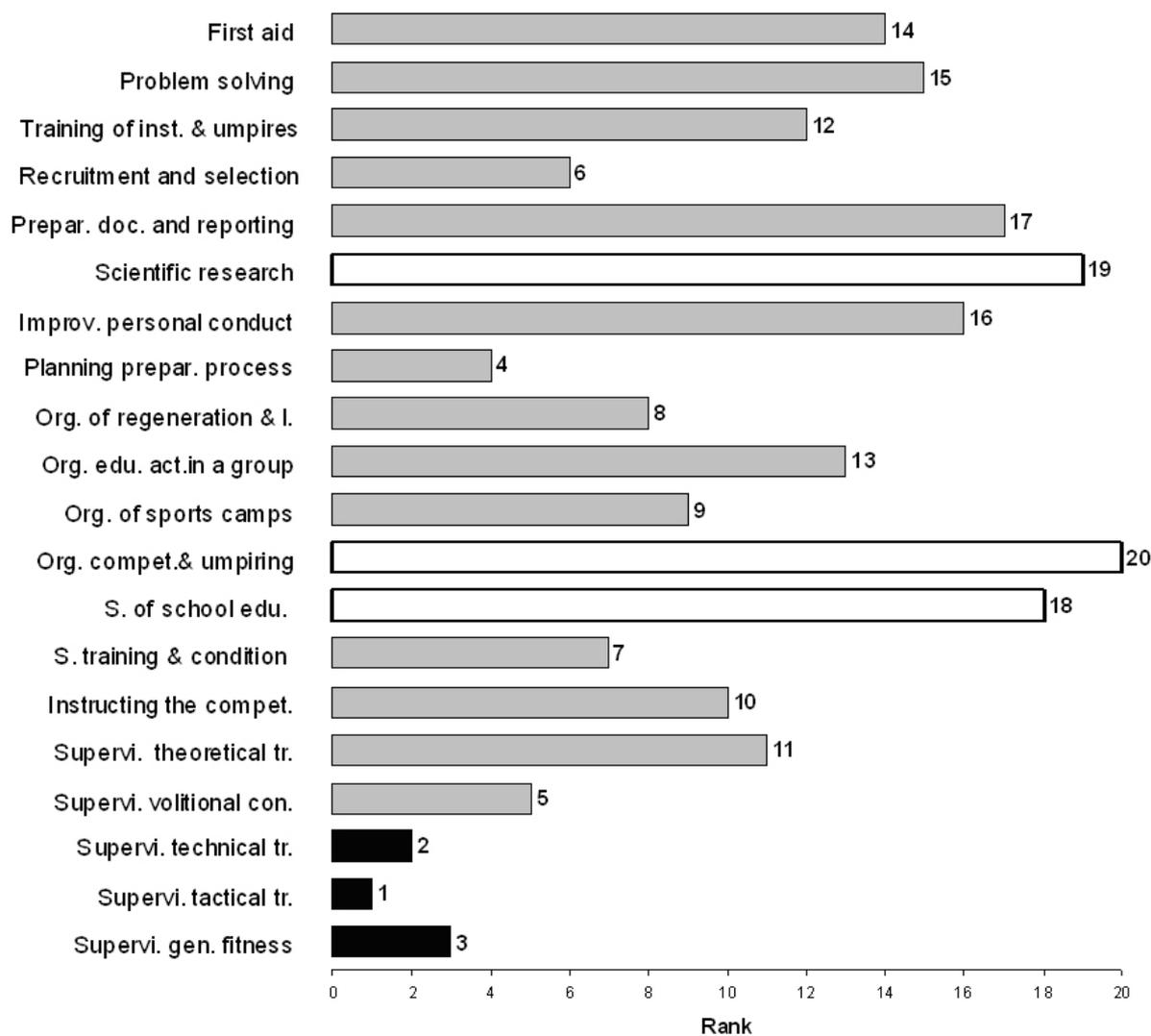


Figure 2. The importance of professional activities of an Olympic taekwondo trainer

Wrestling trainers allocated the highest ranks to managing technical and tactical preparation of wrestlers (figure 3). As the activities of little or no importance they classified controlling the training process and the state of a trainee's body (rank 20), as well as recruiting and selecting candidates to training groups (rank 18). They unanimously allocated rank 1 to technical and tactical preparation. Wrestling trainers differed the most in their views on the importance of managing volitional preparation of trainees (cv=57%).

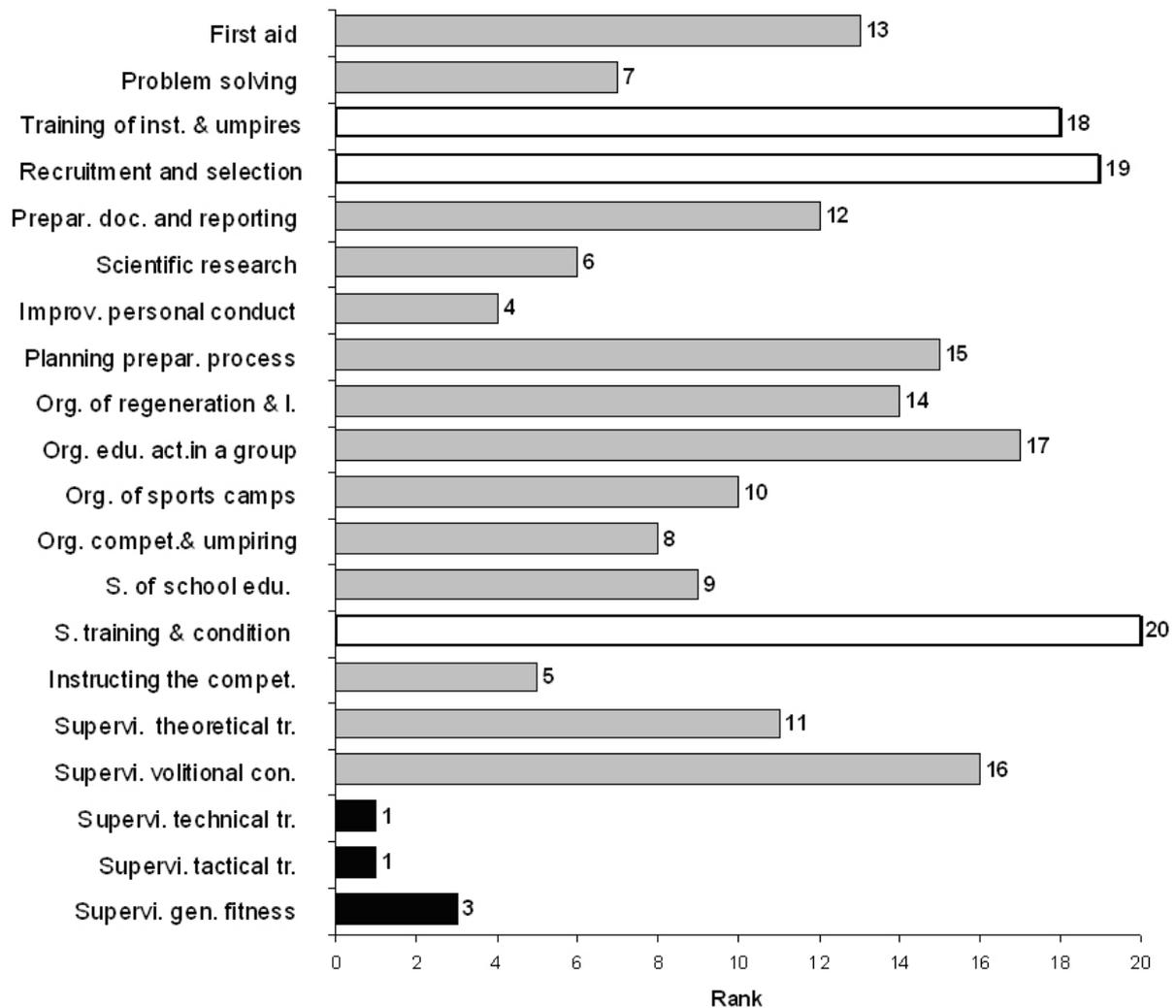


Figure 3. The importance of professional activities of a wrestling trainer

The greatest differences between boxing and taekwondo trainers' opinions were found in the activity of providing first aid (10 ranks difference), preparing instructors and referees (8 ranks difference) and managing volitional preparation of trainees (6 ranks difference) – figure 4. Nevertheless, in general opinions of boxing and taekwondo trainers were very similar ($r_{sp}=0.78$; $p<0.001$).

The greatest differences between boxing and wrestling trainers were found in their views on the importance of controlling a training process and the state of a trainee's body (14 ranks difference), organizing and refereeing competitions and improving the trainees' propriety (11 ranks difference). The general concurrence of opinions was low ($r_{sp}=0.13$; $p>0.05$).

Taekwondo and wrestling trainers differed substantially (13 ranks difference) in terms of their views on controlling a training process and the state of trainee's body, recruiting and selecting candidates, and conducting scientific and methodological research. They differed considerably in their views on the importance of basic professional activities of a trainer ($r_{sp}=0.01$; $p>0.05$).

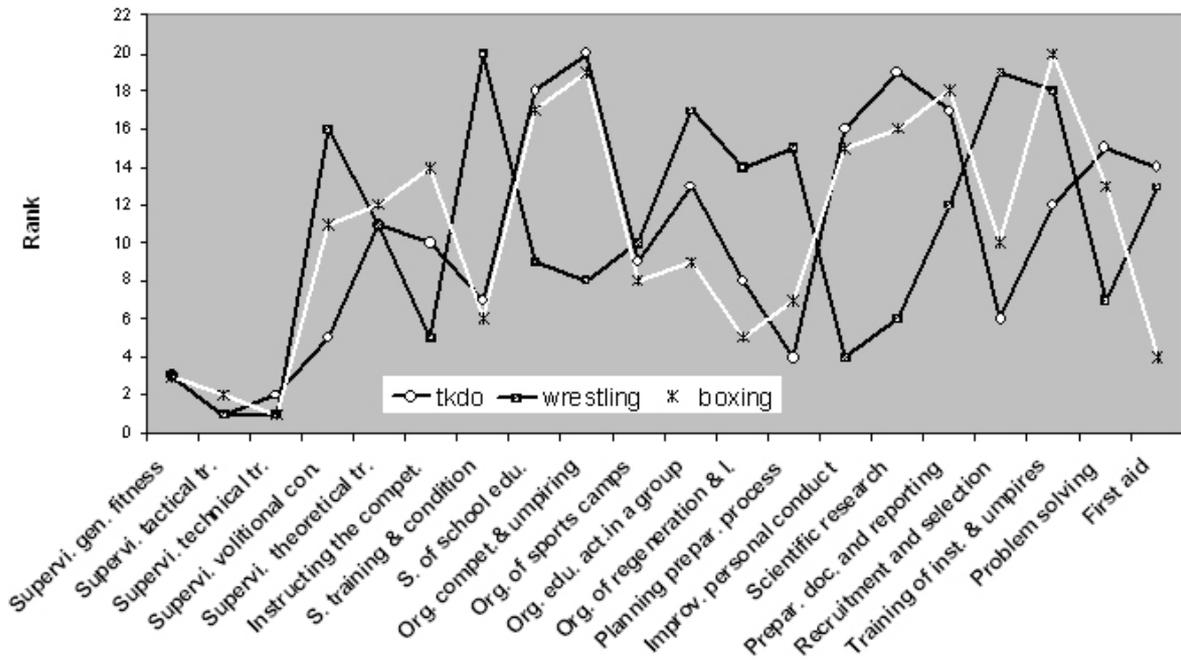


Figure 4. Comparison of the structures of the importance basic professional activities of a trainer in boxing, taekwondo and wrestling

Cluster analysis revealed three distinct groups of activities in boxing (figure 5). The first was composed of 10 most important activities, the second and third group each included 5 activities believed to be less important.

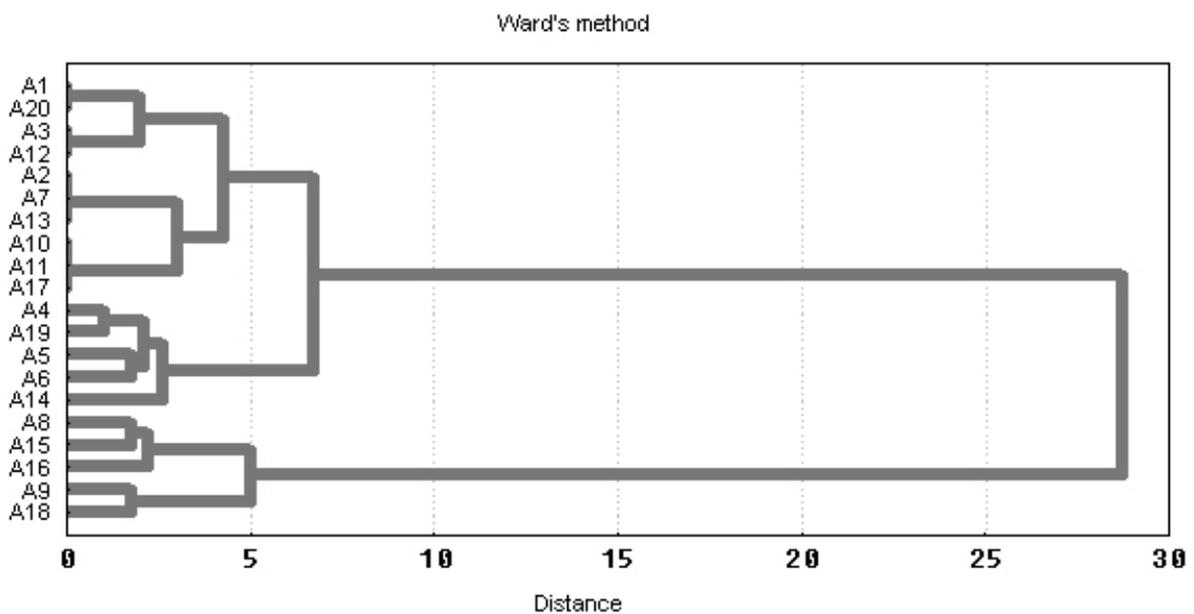


Figure 5. A dendrogram illustrating professional activities of a boxing trainer. A1 ... A20 - list of 20 basic professional activities of a trainer

In Olympic taekwondo, professional activities created a structure of 4 clusters, containing from 2 to 10 objects with various distances between their joinings (figure 6).

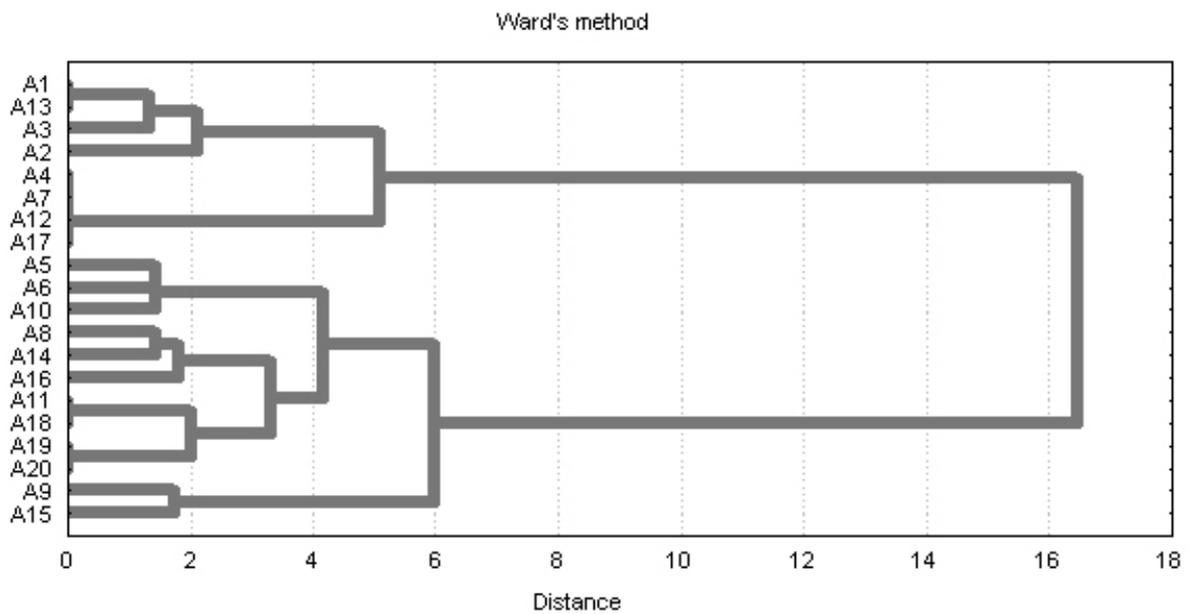


Figure 6. Dendrogram illustrating professional activities of an Olympic taekwondo trainer.
A1 ... A20 - list of 20 basic professional activities of a trainer

In wrestling, the activities formed two clusters containing 11 important activities (rank 1 to 11) and 9 less important or not important activities (figure 7).

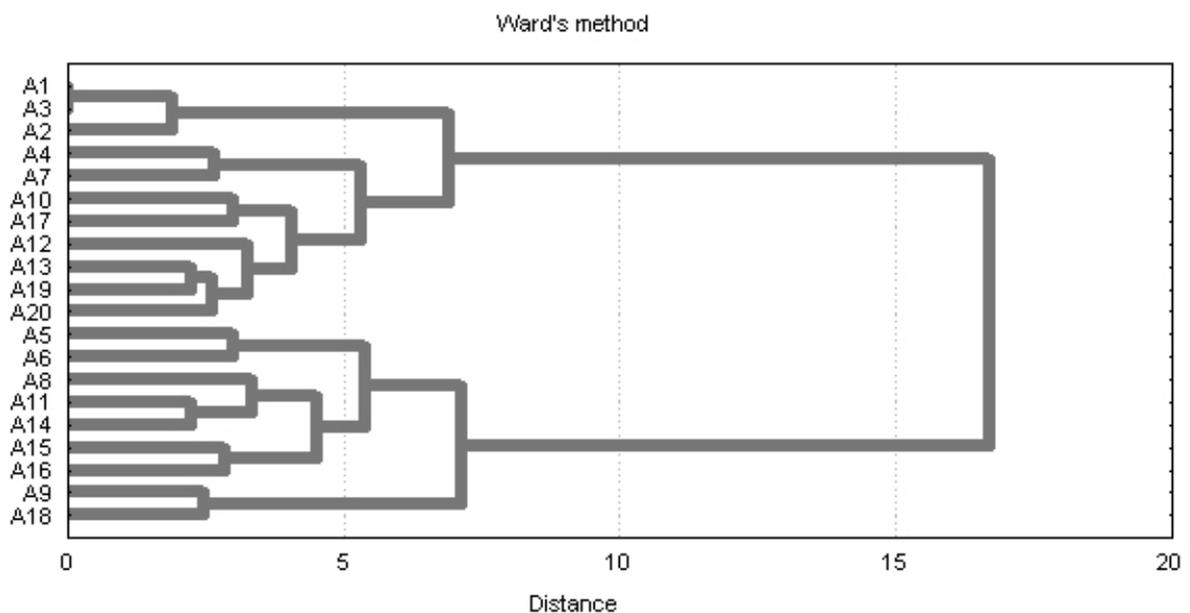


Figure 7. Dendrogram illustrating professional activities of a wrestling trainer.
A1 ... A20 - list of 20 basic professional activities of a trainer

DISCUSSION

The domination of professional activities related to technical, tactical and physical preparation of trainees shouldn't be surprising, taking into account the specifics of martial sports. Similar

results were achieved by Sterkowicz [12] while surveying ju-jitsu and karate trainers. Concurrent opinions were expressed by judo [11], Brazilian jiu-jitsu (bjj) and taekwon-do ITF version [7,8] trainers. Thus, we can assume that technical-tactical and motor preparation constitute fundamental and common areas of trainers' professional activities in martial sports. Surprising may be the low rank allocated to volitional preparation by boxing (rank 11) and wrestling (rank 16) trainers, because participating in training sessions and competitions in itself exemplifies strong volition, providing a psychological workout. But trainers do not pay much attention to this aspect of training. Managing trainees during competitions, understood as seconding (trainer's activities before, during and after a fight), to the greatest extent differentiated boxing (rank 14), taekwondo (rank 10) and wrestling (rank 5) trainers, even though it was highly recognized by Mix Martial Arts and taekwon-do ITF trainers (ranks 4 and 7), thus trainers in sports with distinct combat rules. Managing the physical preparation of a trainee was allocated an identical rank from all Olympic martial sports trainers. Taekwondo trainers haven't ranked any of the 20 basic professional activities as not important, and wrestling trainers allocated identical ranks to technical and tactical preparation. Basic professional activities of a trainer formed various clusters for particular martial sports. The clusters of the most similar activities suggest their impact on the trainees' preparation process in the context of sports rivalry specifics in boxing, taekwondo and wrestling.

CONCLUSION

1. Technical-tactical and motor preparation are dominant in Olympic martial sports.
2. The activities ranked as the least important were different for each Olympic martial sport.
3. The greatest discrepancies between opinions related to managing trainees during sports competitions.
4. Learning the meaning of basic professional activities of a trainer allows for distinguishing sports with different fighting techniques and rivalry rules.
5. The results of the research indicate the main emphasis that is put in the contents of training programs for training staff in various martial sports.

REFERENCES

1. Tumanian GS: O nowom kompleksie uczebnych discipline dlja kafiedr KF wypuskajuszczich trienierow-priepodawatelej po widu sporta. *Teiorija i Praktika Fiziczeskoj Kultury*, 1985;12: 36-38.
2. Błach W Judo. Wybrane zagadnienia treningu i walki sportowej. COS. Warszawa, 2005 [in Polish]
3. Kalina RM: Teoria sportów walki. COS. Warszawa, 2000 [in Polish]
4. Kruszewski A: Zapasy. Podstawy teorii i praktyki treningu. COS. Warszawa, 2004 [in Polish]
5. Pieter W, Heijmans J: Scientific Coaching for Olympic Taekwondo. M&MS. Oxford, 2000.
6. Sterkowicz S: Charakterystyka wybranych wskaźników określających stan przygotowania zawodników karate. AWF. Kraków, 1992 [in Polish]
7. Bujak Z, Litwiniuk S, Selwa Ch: Basic Steps in the Opinions of Professional Coach Trainers Polish Taekwon-do Level II - VII Dan. *Totally TaeKwonDo Magazine*, 2012; 38: 80-89.
8. Bujak Z: Czarny pas w taekwon-do. Teoria, rzeczywistość, praktyka. MKS Żak. Biała Podlaska, 2012 [in Polish]
9. Januszewski J., Sterkowicz S.: Ranga czynności zawodowych jako podstawa analizy programów kształcenia kadr instruktorskich (na przykładzie karate i łucznictwa). *Rocznik Naukowy AWF. Kraków*, 1988; 25: 189-194.
10. Sterkowicz S: Czynności zawodowe trenera judo. In: Sterkowicz S (eds.), *Czynności zawodowe trenera w sportach walki. Zeszyty Naukowe nr 22 AWF. Kraków*, 1999; 5-8.

-
11. Sterkowicz S, Biskup L, Ambroży T: Czynności zawodowe trenera w zapasach i gimnastyce. In: Sterkowicz S (eds.), Czynności zawodowe trenera i problemy badawcze w sportach walki. Zeszyty Naukowe nr 38 AWF. Kraków, 2001; 7-16.
 12. Sterkowicz S: Ju-jitsu. Wybrane aspekty sztuki walki obronnej. AWF. Kraków, 1998 [in Polish]

Address for correspondence:

Zbigniew Bujak, Faculty of Physical Education and Sport in Biała Podlaska, address: Akademicka 2, 41-500 Biała Podlaska, Poland email: bujakz@o2.pl

Received: 29.05.2013; Accepted: 28.06.2013; Published online: 27.08.2013

www.PhysActiv.ajd.czyst.pl