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TITLE

Towards a definitive technical classification of sports events

SUB-TITLE

A most original classification of sports events in the context of sports technique.

(A synthesis, adapted handily in the form of an article that sums up the contents of the book *The Technical Classification of Sports Events* by Claudio Scotton, editors Calzetti & Mariucci, Perugia, 2003, pagg. 104)

KEY WORDS

Classification. Sports Event. Sports Technique. Sports Training.

ABSTRACT

The author succinctly puts forward some existing classifications of a bio-energetic technical and coordinative order, he gathers known sports technique definitions and offers some of his own. In a guide he indicates the meaning of the terms employed in compiling the book.

His endeavours to recognize the objectives that constitute the fundamental sport technique of the homogeneous "macro-family" of sports, displayed in a general chart and in ten specific ones by sub-dividing the "families".

Having decided, with maximum precision, on other parameters, he launches 750 sports events, classifying them into 41 sections. Each sections and all the sports events have been coded.

INTRODUCTION

The purpose of this study is to try to catalogue and make a list of sports events, by subdividing them into homogeneous families, in accordance with a classification relative to the fundamental objectives of the technique.

The book doesn't give answers to how you can learn, improve or apply a sport technique; nor does it give solutions to the problems which can arise when preparing a professional athlete.

People who could be interested in this, are those who work in the world of sports and experts of movement in general: students studying sports sciences, teachers of gymnastics, coaches, and health service's operators.

This is a "didactical instrument" which can help "students" to broaden their minds, reflect and motivate them to acquire a deeper knowledge of those sports techniques not included in their university studies. Considering the general charts N and S, reading first where it refers to the sectors of sports events, then the common fundamental objectives of technique, and in the end reading what characterize a certain sport, you can immediately recognize the essential of technique and the analogies with other disciplines.

We believe that it is important, for those who are studying sport sciences, to improve their knowledge about sports techniques and didactical methods of at least one discipline of each macrofamilies of sports.

The classification "can be used by coaches in their choice of certain exercises from the "elements of a training structure" (1) only among the sport technique. In some phases of

their training, it could be useful, for all athletes, to use sport techniques similar to those used to reach their highest level of sport fitness.

Especially for children, during their approach to sport, p.e. teachers, coaches but also specialists in sport medicine (in physiatry, paediatrics or physiotherapists), could better understand the technique structure of all different sports disciplines, bearing in mind a future choice for a sport that could have a great formation, “with a multilateral character” (2, 3) the more complete and real, and also to make a functional recovery easier after a trauma or an accident.

As you might know, it is correct to let children try different kind of sports, do not focus their attention on one competitive sport, it is also correct to let them try different techniques from different macrofamilies of sports.

OTHER CLASSIFICATIONS AND PRELIMINARY OBSERVATIONS

A LIST OF SOME CLASSIFICATIONS OF SPORTS

Many studies of body movement apply to sport, have tried to make different classifications. We have quoted here “some parts of existing classifications”, that try to give an answer to bioenergetic needs (14, 15, 16), on different characteristics in technique (7, 8, 9, 10, 12, 13), on the different competences in coordinative capacities useful to practice a sport (6), on disabled sports (22), and much more. (4, 5, 11, 17, 18, 19, 20, 23, 24, 25, 26, 27).

Those charts, considering what has been said before, contain also a list of sports events with different activities.

PERPLEXITIES

We focused our attention especially on D’jackov, Neumeier and Ritzdorf, Farfel charts, illustrated and commented by Merni, 1989 (chart 1):

Sport classes	Example of sport	fundamental objectives in common of the technique
Force sports	Weight lifting	Use of all characteristics in movement to increase in a maximum way force, force impulses and rapidity.
Force-rapidity sports	Jumps and throws in athletics	
Rapidity sports	Short distances in running, skating, cycling	
Resistance-cyclic sports	Walking, running, skating, cycling, cross-country skiing, rowing, canoe, swimming	Research of the maximum saving of movements
Precision sports	Target shooting, archery, golf, bowling	Research of the maximum precision of movements and of results
Technique compositor sports with a qualitative valuation	Gymnastic, rhythmic gymnastic, figure skating, diving, synchronized swimming, water-skiing, ski-jumping	Research of the maximum valuation from the judges, using the most difficult, spectacular, precise and expressive motor compositions

Situations sports: Sport games	Soccer, basketball, volleyball, handball, tennis, water-polo, baseball, rugby, hockey, polo, badminton, ecc.	Try to adapt to the technique-tactical situation in the most rapid and optimal way; trying in the same time to confuse the adversarie's technique.
Fight sports	Wrestling, boxing, sencing, judo, karatè, ecc.	
Sport with a rapid adapt to environment	Alpine-skiing, river canoe, luge, bob-sleigh, orienteering running, motocross, ciclocross, ecc.	Try to keep a perfect tecnique independently to environment situation.

- A) Terms like “force”, “resistance”, “velocity”, used in the charts, refer to organic-muscular capacities and not to sport technique. It wouldn't be much more useful try to redefine sports'group without using terms that refer to classifications that consider bioenergetic necessities and the type of organic-muscular capacity?
- B) Some sports have sports specialities that belong to different classes (like combat sports). Is it important to try to make a list of sports specialities by grouping each discipline to a new macrogroup which in the new classification will be known as macrofamilies, mingle them in relation to the fondamentale objectives of the tecnique?
- C) Not all the specialities can be classified in a sport class. For example, which class do sports like modern pentathlon or decathlon belong to? And bridge or chess, sports where their Federations are not associated with C.O.N.I.?

THREE PHASES OF THE STUDY REALISATION

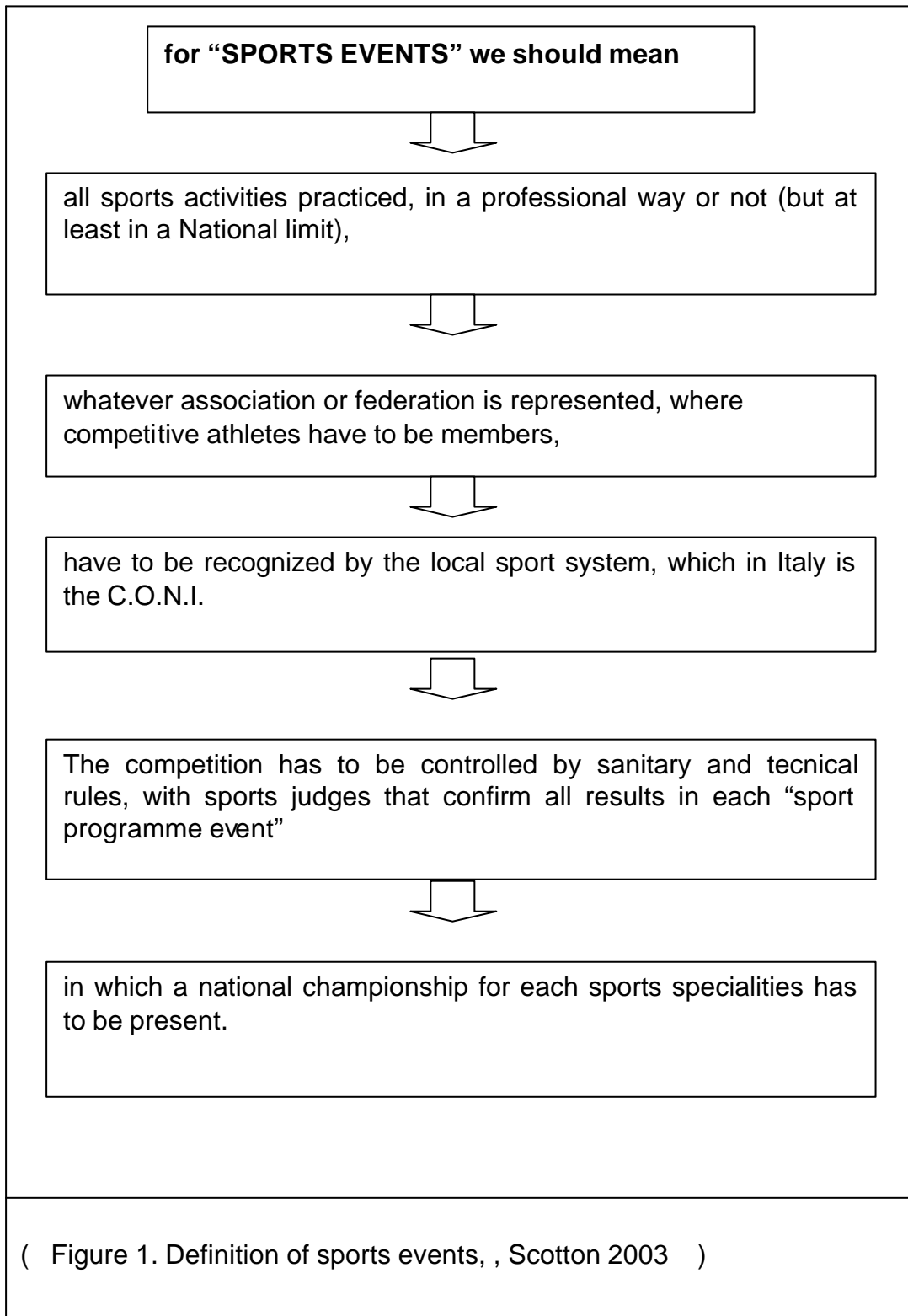
First phase

ORIGINAL DEFINITION OF SPORTS EVENTS:

We believe that for “sports events” we should mean all sports activities practiced, in a professional way or not (but at least in a National limit), which association or federation they represent, where competitive athletes have to be members, have to be recognized by the local sport system, which in Italy is the C.O.N.I.(Comitato Olimpico Nazionale Italiano). The competition has to be controlled by technical rules, with sports judges who confirm all results in each “sport programme event”, in which a national championship has to be present for each sports specialities (for example: rings in gymnastics, mens' double in tennis).

All participants of the competitions, have to observe all the sanitary rules, remembering that “agonistic sports activities, can't belong only to an infraregional community, and because sports ordinance is connected to an international ordinance, must based on general technique rules, which are regulated by a Ministry of the Sanity decree in relation with C.O.N.I.” (21)

If sports specialities do not have all the required characteristics (these definitions are quoted in Fig.1), they belong to the ones that are called “general sports”.



“General sports”, do not have as first purpose a competitive aspect controlled as the proper ones, but they have mainly aimed for health – recreative - touristic or professional purposes:

- fitness, in this case practiced in gyms, swimming pools or open water, parks;
- folkloristic games, now present in village fetes or in surrounding places;
- trekking, also at high levels;
- martial arts, in particular the ones that give importance to inner systems, like meditation,
- various extemporary exhibitions such as bungee jumping;
- parlour games and “hobbies”;
- artistic activities, like ballet;
- circus performances

They are activities, where sport performances are occasional, even with a high risk, which in this case is determined by sporadicness psychophysical job at a high level (mental and functional stress).

ORIGINAL DEFINITION OF SPORT TECHNIQUE

Starting from the study of definitions already known, we managed to put forward this proposal:

“sport technique consists in the selection (in sports surroundings) of sports abilities, potentially stereotyped or not, cyclic, acyclic, individual or collective (simultaneous or in succession), made adequately automatic, and also in doing activities with a high temporary mental participation for different objectives, by applying human physical and biological laws, in sport equipment, propulsive or not, with the use of means or animals, to reach an optimal sport result, in accordance to the rules”.

Second phase

CRITERIONS AND CHARTS

The author is aware that the lists of sport specialities (see specific charts), are only an incomplete and criticable attempt. But it is still an attempt to increase knowledge about training and sport in general.

It is possible to make an enumeration of all sports specialities now known, but only for particular agonistic events. Torino 2006 could be an example with all its specialities. In the ten specific lists, they are abbreviated GOI.

The second phase is based on the research, still going on, of motor, physic, sport's activities lists, taken from the rules of CIO, CONI, National Sports Federations, Associations recognized by CONI and other authorities accredited by CONI or other International Organism, magazines, websites, books, encyclopaedias.

GENERAL CHARTS

General tablets N and S belong to the original codification of sports specialities sectors. In general lists, some columns are present, where the fundamental objectives of sport technique that characterized the macrofamilies of sports are collocated, next to this are the families and other parameters, and lastly the sports specialities sectors.

USE OF SPORT EQUIPMENTS

Most of the attention goes also to the study of sport technique which takes place with or without use of propulsive or not propulsive equipment. (Fig.2)

Let's see now what are the “propulsive sport equipment”.

First of all, we believe that the six (and more) types of realization of a sport techniques that we found can help people interested in this, to better understand the right use of the term propulsive.

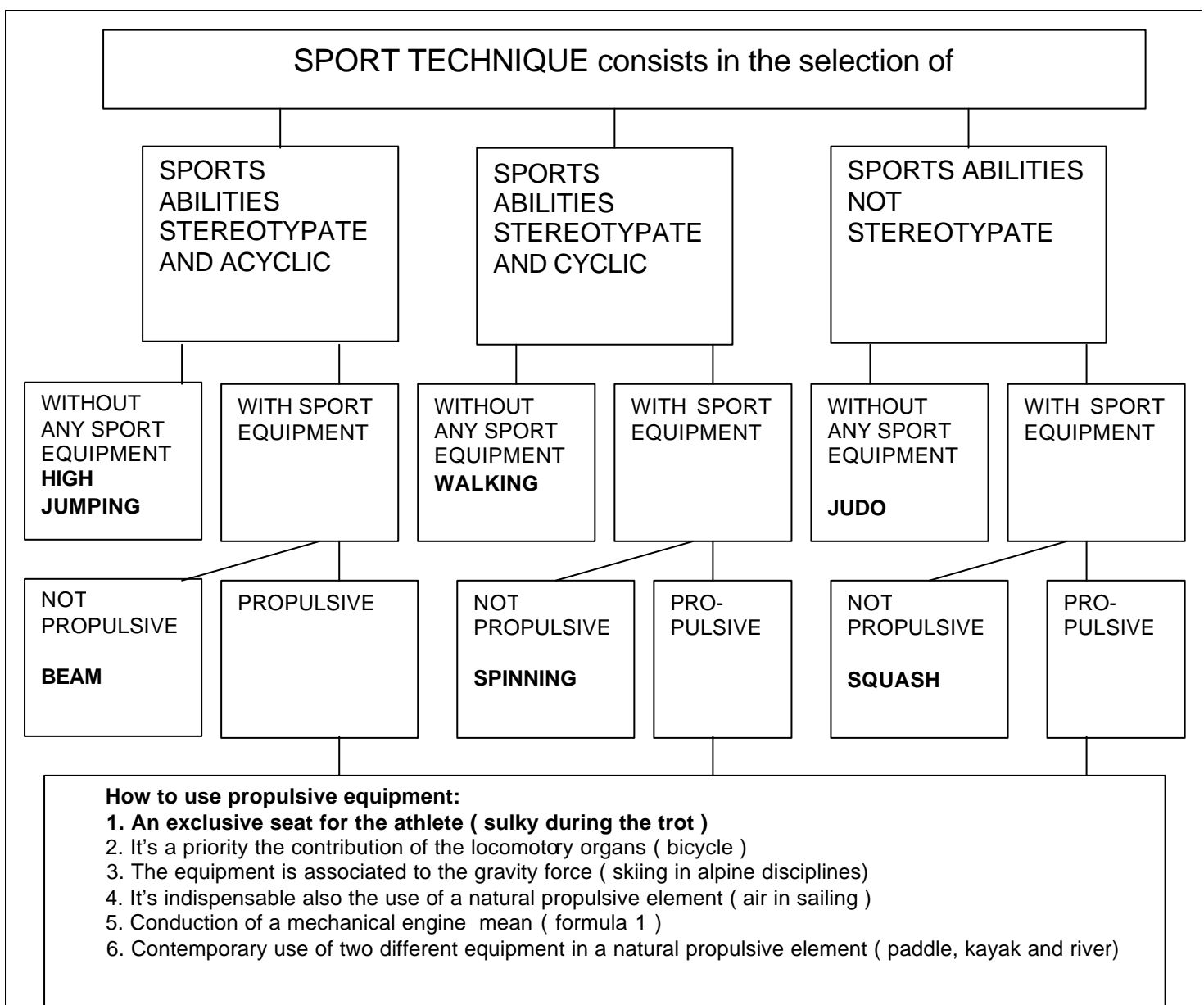
The term propulsive could be used only for those sport specialities in which athletes are transported by a sport equipment moved by sails, oars, motor propulsive, etc..., using the physical meaning of the term.

For example in pole vaulting in athletics, the athlete uses an equipment to realize his sport technique, and we consider it a propulsive organ that lets the athlete to apply his force (exterior force) and bend the pole, with the following movement that lets the athlete rise up and pass the bar (Newton's principle of action and reaction). The pole vaulter bends the pole and when the exterior force stops, the pole returns to its primitive form. We can find the same characteristics of elastic force, also in the trampoline for divers or in the springboard for vaulting in gymnastics.

In all these cases, the meaning we give to propulsive has obviously an extensive value which allows us to recognize, a characteristic in the equipment used, which is conditioned by the contribution made by the equipment in relation to the human locomotory.

Fig 2

Sport technique which takes place with or without use of propulsive or not propulsive equipment



Third phases

ATTRIBUTION OF CODES TO SECTORS AND SPORT SPECIALITIES

For example, we could give a code to the sail class tornado code N1IH/cap-9) that belong to the sport speciality sector with an immediately postural adaption and/or use of water-underwater, with use of propulsive means/equipment.

- N refers to the general list where all sport specialities, characterized by a high use of sport motory abilities, individual and/or collective, not stereophatic are gathered up.
- Number 1 refers to the fundamental objective of technique. The numbering from 1 to 3 is given, in both general tablets, indifferently for quality and quantity of technique purposes. The numbering of all objectives hasn't got a hierarchical meaning.
- The two letters I and H distinguishe the macrofamily and sport family.
- The last small letters, are present only for certain sectors, are given considering other parameters. In the specific appears "cap" that means with sport propulsive means/equipment.
- The last number 9, refers to the order in which the tornado class in the specific charts (charts N and S) has been collocated.

**CLASSIFICATION OF THE SPORT SPECIALITIES CHARACTERIZED BY
A HIGH USE OF SPORT ABILITIES NOT STEREOPATHIC
GENERAL CHART N**

FONDAMENTAL OBJECTIVES IN SPORTS TECHNIQUE	MACRO FAMILIES OF SPORTS	SPORT FAMILIES OTHER PARAMETERS		SECTORS OF SPORTS SPECIALITIES		
Try to adapt, in real time, the tactical, the individual and/or collective technique (with contemporaneous or succession actions) and the one of leading/controlling of the sport mean/equipment to the different natural/artificial situation of the environment, trying to reach the best result of time and/or measure and/or points	Sport with an immediately postural and/or mean to the environment adaption	Water/ Under water	With propulsive equipment	N1IH/cap		
			Without propulsive equipm.	N1IH/sap		
		Air	With propulsive equipment	N1IA/cap		
			Without propulsive equipm.	N1IA/sap		
		Earth	With propulsive equipment	N1IT/cap		
			Without propulsive equipm.	N1IT/sap		
		Snow/ ice	With propulsive equipment	N1IN/cap		
			Without propulsive equipm.	N1IN/sap		
		Intuition of tatic situations and its rules, trying to adapt our tehnique and organized strategy, individual and/or collective, disorienteing the enemy ones	Sport games	With prevalent send-resend of the ball-equipment	Using only equipment	N2GI/usa
					Using hands and/or feet and/or equipment	N2GI/mpa
				With contest of the ball-equipment	Using only equipment	N2GC/usa
					Using hands and/or feet and/or equipment	N2GC/mpa
Combat sports-direct opposition	Hitting previously with hands anf feet		N2CM			
	Hitting only with equipment		N2CA			
	Characterized by holding hands		N2CP			
Sport with a static position <i>ininfluente</i> and an important mental strain	Very strategic non immediately		N2SS			
	Supported by an electronic intervention		N2SE			
Dominated and emphasized the character and movement qualities of the animal, producing also acrobatic-gymnastic elements	Sports with animals		For sport games		N3AG	
		For distances and/or jumps hurdles and/or respect times	With propulsive equipment	N3AD/uap		
			Without any propulsive equipment	N3AD/sap		
		For technique-compositor specialities		N3AT		
		For multispecialistic and multifamilies disciplines		N3AM		

CLASSIFICATION OF THE SPORT SPECIALITIES CHARACTERIZED BY
A HIGH USE OF SPORT ABILITIES STEREOPATHIC
GENERAL CHART S

FONDAMENTAL OBJECTIVES IN SPORTS TECHNIQUE	MACRO FAMILIES OF SPORTS	SPORT FAMILIES		SECTORS OF SPORTS SPECIALITIES	
		OTHER PARAMETERS			
Search of the maximum valuation from the judges, thanks to individual or collective motor compositions, (contemporaneous or succession actions), every time more acrobatic, spectacular, expressive, original, dangerous, rich in virtuosity	Technique compositor sports with a qualitative valuation	Free body		S1TC	
		small apparatus		S1TP	
		big apparatus		S1TG	
		Possibile, thanks to a water/air substrate		S1TR	
		Leading a sport mean/apparatus	In water/under-water		S1TM/h
			On land		S1TM/t
			In air		S1TM/a
			On ice/snow		S1TM/n
Reach the target in the most perfect way and with as few mistakes as possible	Sport with important ballistic	Using only hands		S2PM	
		Using equipment		S2PA	
Obtain the best result, individual and/or collective (doing contemporaneous or succession actions), of time and/or measure – eventually with a transformation in points - , realized in sport place stable or previously stable Some tests in multispecialist sports, have also other objectives that are typical of other macrofamilies, characterized by sport actions stereophatic or not	Time and/or mesure sport, with short or medium time motor actions	cyclic	With out any propulsive equipment	S3BC/sap	
			With propulsive equipment	S3BC/cap	
		acyclic	With out any propulsive equipment	S3BA/sap	
			With propulsive equipment	S3BA/cap	
	Time and/or measure sport, with long, with out any stop, motor actions	cyclic	With out any propulsive equipment	S3PC/sap	
			With propulsive equipment	S3PC/cap	
	multi-specialistic sport	acyclic		S3PA	
		Continuous		S3MC	
		Not continuous		S3MN	

SPECIFIC CHARTS IN ATHLETICS SPECIALITIES

See macrofamily N1IH.A.T.N. "Sport with an immediately postural control and/or means in the environment" in the general chart N.

SPECIFIC CHART N1IH-A.T.N.

MACROFAMILIES: SPORT WITH AN IMMEDIATELY POSTURAL AND/OR MEAN TO THE ENVIRONMENT ADAPTION

- **Family: Water-underwater**

Other parameters : *WITH PROPULSIVE SPORT MEANS/EQUIPMENT*

Sector of sport specialities: *N1IH/cap*

Sport specialities:

1. *mistral class, m, f, sailing*
2. *finn class, m, sailing*
3. *yingling class, 3f, sailing*
4. *star class, 2open, sailing*
5. *europa class, f, sailing*
6. *laser class, open, sailing*
7. *470 class, 2m, 2f, sailing*
8. *49esima class, open, sailing*
9. *tornado class, 2open, sailing*
10. *america's cup, sailing*
11. *lonely regatta, ocean sailing*
12. *regatta with crew, ocean sailing*
13. *regatta with other monotype boats, sailing*
14. *regatta with other boats a formula, sailing*
15. *regatta with other boats a restriction, sailing*
16. *regatta with other multihull, sailing*
17. *formula windsurfing, windsurf*
18. *cross, windsurf*
19. *tandem, windsurf*
20. *speed, windsurf*
21. *high jumping, windsurf*
22. *slalom, windsurf indoor*
23. *no limits, (balloon-weight) apnea*
24. *constant balance, m, f, apnea*
25. *K1 slalom, m, f, kayak*
26. *C1 slalom, m, canoe*
27. *C2 slalom, m, canoe*
28. *speed, water skiing*
29. *slalom, water skiing*
30. *barefoot slalom, water skiing*
31. *monoseat slalom, m, f, motor-boat*

- 32.2 seats slalom, m, f, motor-boat
- 33.3 seats slalom, m, f, motor-boat
- 34.offshore resistance, motor-boat
- 35.hydrofoil, motor-boat
- 36.speed ski division, motor-boat
- 37.speed motorboat, motor-boat
- 38.photosub
- 39.rafting
- 40.powersky jet boards
- 41.tubing
- 42.floater slippers, watersky
- 43.underwater orienteering
- 44.idrospeed
- 45.kiteboard,
- 46.seven types of competitos in free water (oceanic), m, f, swimming saving
- 47.maniking transport with flippers 100 mt, m, f, swimming saving
- 48.maniking transport with flippers and torpedo 100 mt, m, f, swimming saving
- 49.underwater archeology
- 50.high jumping, m, f, kitesurf
- 51.underwater fishing
- 52.shuttle bike
- 53.underwater trekking
- 54.surf-s wimming
- 55.water bike, multihull
- 56.....

Other parameters : *WITHOUT PROPULSIVE SPORT MEANS/EQUIPMENT*

Sector of sport specialities: *N1IH/sap*

Sport specialities:

1. apnea observation, underwater swimming
2. maniking transport 50 mt, m, f, swimming saving
3. fishing row from the shore, fishing in sea water
4. fishing row from the boat, fishing in sea water
5.

- **Family: Air**

Other parameters : *WITH PROPULSIVE SPORT MEANS/EQUIPMENT*

Sector of sport specialities: *N1IA/cap*

Sport specialities:

1. hang-gliding hard wing
2. hang-gliding flexible wing
3. hang-gliding o 2seats
4. hang-gliding with engine
5. acrobatic airplane
6. balloon
7. air diportismo (pleasure)
8. transiberian migration-5000 km
9. parachute planing
- 10.....

Other parameters : *WITHOUT PROPULSIVE SPORT MEANS/EQUIPMENT*

Sector of sport specialities: *N1IA/sap*

Sport specialities:

1. *free fall, parachute*
2. *individual kiting*
3. *multiple kiting*
4.

- **Family: Earth**

Other parameters : *WITH PROPULSIVE SPORT MEANS/EQUIPMENT*

Sector of sport specialities: *N1IT/cap*

Sport specialities:

1. *track, bmx*
2. *cross-country, m, f, mountain bike*
3. *downhill, m, f, mountain bike*
4. *point to point, mountain bike*
5. *short circuit, mountain bike*
6. *raid, mountain bike*
7. *up-hill, mountain bike*
8. *dual slalom, mountain bike*
9. *four cross, mountain bike*
10. *running in stages, mountain bike*
11. *ciclocross, m, f, out of track bike*
12. *formula 1, pilotes F1, motoring*
13. *formula 1, constructors F1, motoring*
14. *formula 3000, motoring*
15. *go-kart, motoring*
16. *turismo velocity, motoring*
17. *formula Renault, motoring*
18. *prototypes, motoring*
19. *mountain velocity, motoring*
20. *superproduction, motoring*
21. *200 miles, formula Indy*
22. *300 miles, formula Indy*
23. *400 miles, formula Indy*
24. *500 miles, formula Indy*
25. *pro stock, drag racing*
26. *moto pro stock, drag racing*
27. *funny car, drag racing*
28. *top fuel, drag racing*
29. *chronometred fixed line, rally*
30. *velocità, rally*
31. *autorally, cross country rally*
32. *motorally, cross country rally*
33. *camiorally, cross country rally*
34. *velocity, sidecar*
35. *endurance, sidecar*
36. *slalom, m, f, grass-skiing*
37. *giant slalom, m, f, grass-skiing*
38. *super giant, m, f, grass-skiing*

39. *combined, m, f, grass-skiing*
40. *windsurf with wheels on sand or land*
41. *ascent, old motor-cycling*
42. *scooter, old motor-cycling*
43. *cross, old motor-cycling*
44. *classic cars, old motoring*
45. *GP 125, motor-cycling*
46. *GP 250, motor-cycling*
47. *GP 500, motor-cycling*
48. *superbike, motor-cycling*
49. *motocross, motor-cycling*
50. *supercross, motor-cycling*
51. *individual velocity, motor-cycling*
52. *supermotard, motor-cycling*
53. *minimoto, motor-cycling*
54. *individual enduro, motor-cycling*
55. *team enduro, motor-cycling*
56. *high jumping, motor-cycling*
57. *long jumping, motor-cycling*
58. *parakart, tricycle with kite*
59. *San Francisco race, luge with rollers*
60.

Other parameters : *WITHOUT PROPULSIVE SPORT MEANS/EQUIPMENT*

Sector of sport specialities: *N1IT/sap*

Sport specialities:

1. *10-20 km/90', m, orienteering,*
2. *7-15 km/75', f, orienteering*
3. *4 km, m, f, cross-country*
4. *8 km, f, cross-country*
5. *12 km, m, cross-country*
6. *indor climbing, climbing on rocks*
7. *free climbing, climbing on rocks*
8. *canyoning, streaming*
9. *trekking*
10.

- **Family: Snow-ice**

Other parameters : *WITH PROPULSIVE SPORT MEANS/EQUIPMENT*

Sector of sport specialities: *N1IN/cap*

Sport specialities:

1. *special slalom, m, f, alpine-skiing, GOI*
2. *giant slalom, m, f, alpine-skiing, GOI*
3. *super giant, m, f, alpine-skiing, GOI*
4. *free descent, m, f, alpine-skiing, GOI*
5. *bob-sleigh for two, m, f, GOI*
6. *bob-sleigh for four, m, f, GOI*
7. *skeleton, m, f, GOI*
8. *single, m, f, luge, GOI*
9. *double, m, luge, GOI*

10. speed kilometres , m, f, sci
11. speed kilometres, production, sci
12. parallel giant slalom, m, f, snowboard, GOI
13. snowboard cross, m, f, snowboard, GOI
14. parallel slalom, m, f, snowboard
15. special slalom, m, f, snowboard
16. super giant, m, f, snowboard
17. giant slalom, m, f, snowboard
18. giant slalom, telemark
19. classic, telemark
20. classic sprint, telemark
21. cross country, motosledges
22. speed, motosledges
23. windsurf on ice
24. speed, sailing on ice
25. alpine-skiing
26. sky orienteering
27. sky flying, ski-jumping 200 mt
28. sky bike, mountain bike
29. 500 mt, m, f, short track, GOI
30. 1000 mt, m, f, short track, GOI
31. 1500 mt, m, f, short track, GOI
32. 3000 mt relay race, f, short track, GOI
33. 5000 mt staffetta, m, short track, GOI
34. tunning, rubber ring
35. tunning, rubber dinghy
36. zorbing, nylon sphere
37.

Other parameters : *WITHOUT PROPULSIVE SPORT MEANS/EQUIPMENT*

Sector of sport specialities: *N1IN/sap*

Sport specialities:

1. *ice mountaineering*
2.

FINAL OBSERVATIONS ON THE SPECIFIC LISTS

The number of all sport specialities is destined to increase and so all lists will have to be brought up to date, eventually integrating them to other families or even creating new macrofamilies.

But what worries most is this doubt: in the phase of classification of each sport speciality in each sector, has it really and correctly been considered the objectives that distinguished a sport technique?

Some specialities, in some part of the competition, could be part of other macrofamilies, even if in a subordinate way and with some similar fundamental objectives of technique for both families.

For example cross country in mountain bike, or grinder in the America's Cup; in both disciplines, with an immediately postural control and/or means in the environment, the

technique is characterized by actions with a cyclic movement, for short or medium time or also for long time without any pause.

Other two examples.

In a short track competition the dimension of the track and the rules of the competition, obliged athletes to an immediately postural control and of a particular technique using the equipment. The skaters have to bend and then go straight on ice, increasing, during their actions, the alternate and crossing of tactics and technique components. For this reason we believe that the single discipline of short track can not be collocated in sports of time and/or measure (like can be 500 mt males, which record is under 45") or long time without any pause (all other specialities), but they have to be classified in the specific list N11.

Finally, for the 3000 hedges, characterized by jumping some hurdles and ditches, it is important to consider that athletes have a fluid run, really cyclic and with a uniform rhythm for most of the time. This is way we can classified it in the list S3P.

The intention of the book is to activate a system for a periodic up dating of the classification (see cap.6), trying to involve as many people as possible asking them their opinion.

We know that maybe we did not give real solutions for the choice of elements and for training in general, but it was not our objective to do so much. We believe that we managed to offer some new knowledge on sport technique in general.

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