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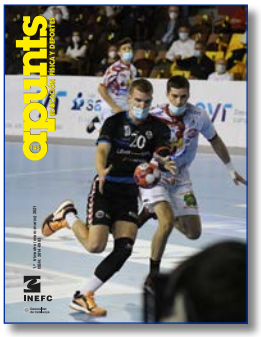

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Legislative Analysis of Mountaineering and Climbing Technical Qualifications in Spain

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Handball Spain: Ademar León and Liberbank Sinfín play the first match with masks during a Sacyr Asobal league game in October 2020, to comply with the regional regulations of COVID-19. J.Casares/(EPA) EFE/ lafototeca.com

Abstract

Previous research shows an increase in practitioners of outdoor sports, a rise in companies and professionals working in this field and the need to train qualified instructors. The training system for professionals in the sector is still being organised and the qualifications required to work as an instructor are currently being defined. Royal Decree 318/2000 of 3 March established the qualifications for mountaineering and climbing sports and some autonomous communities (Spain's regions) drew up their own specific syllabuses. Over the following twenty years, the new teaching content was implemented and taught. Royal Decrees 701/2019 and 702/2019, both of 29 November, were published on 10 January 2020 and updated these qualifications. The texts of the previously applicable regulations and the ones recently published concerning the technical qualifications required for these specialities were systematically and exhaustively analysed. The analysis of the regulations in force until 2019 indicated that they varied in the autonomous communities in comparison with the state-wide regulations in key issues: total study load, professional skills, professional practise, training modules completed, time distribution and proportion of hours of theory and practice. Thus with a view to ensuring common and state-wide guidelines for practising as a professional in these specialities, there is an evident need for consensus and homogenisation of the regulations governing qualifications across the autonomous communities. The new qualifications that emerged through the publication of the new decrees address some of these aspects, although they also give rise to other questions and potential issues.

Keywords: sports instructors, outdoor sports, mountaineering and climbing sports, professional qualifications, legal system.

Introduction

Some years ago, there was talk of a boom in what is called outdoor sports and physical activities (OSPA), of a progressive increase in the number of practitioners and a greater number of professionals engaged in this activity (Camps et al., 1995, p. 44). The number of active tourism companies has also burgeoned over the last two decades (Nasarre, 2016, p. 102). The outdoors has become a sports setting that anyone can use; in turn, accidents have increased (Inglés & Seguí, 2012b, p. 89). Numerous studies have provided data about the rising accident rate in mountaineering activities in Spain and other countries (Avellanas, 1995; Nerín & Morandeira, 2005; Powel, 2007; Wild, 2008; Vela, 2009; Mediavilla & Villota, 2012; Sánchez, 2016; FEDME, 2017; Departamento de Interior de la Generalidad de Cataluña, 2019). Despite the existence of regulations governing the responsibility of the stakeholders involved in the activity, the professional setting and qualifications (Inglés & Seguí, 2012b), it would seem that "the legal system is still an unknown quantity in the sector" (Inglés & Seguí, 2012b, p. 90).

The qualifications of sports instructor and higher sports instructor (SI and HSI) were integrated into the education system by means of Royal Decree 1913/1997, subsequently repealed by Royal Decree 1363/2007 when these qualifications went on to become known as *enseñanzas deportivas de régimen especial* (special-regime sports education; SRSE). The SI and HSI qualifications in mountaineering and climbing sports were established by Royal Decree 318/2000 (RD318/2000), which required the autonomous communities (AC) to draw up their own syllabuses based on the observance of minimum content (MC). The implementation of the aforementioned SRSE was described as slow, complex, somewhat heterogeneous and insufficient to meet demand, since it was conducted differently in the AC and in different teaching centre models (Madrera et al., 2014). In 2005, the training range in OSPA was described as highly varied and a degree of confusion was reported with regard to the competencies taught in each training course (Sáez & Giménez, 2005). There is a very close link between SRSE and the professional sphere and the planning of professional venues (Madrera, et al., 2015) and while great progress has been made since the beginning, the qualifications required to work as an OSPA instructor "are still in the resolution stage" (Inglés & Seguí, 2012a, p. 188). Moreover, these activities have a constant creation cycle and evolve by merging or mixing with each other, meaning that regulations rapidly become obsolete (Mediavilla, 2014). Royal Decrees 701/2019 and 702/2019 (RD701/2019 and RD702/2019, respectively) were published in January 2020. These decrees propose substantial changes in the structure, competencies and syllabuses of technical training in the mountaineering and climbing specialities, repealing RD318/2000 and all the other provisions of the same or lower rank which conflict with the new regulation (single repealing provision of RD701/2019 and RD702/2019). New syllabuses for these teaching contents must be implemented as of the 2020/2021 academic year (third final provision, RD701/2019 and RD702/2019) and the educational administrations of the AC must establish the corresponding syllabuses (art. 15, RD701/2019; art. 28, RD702/2019). Until these new syllabuses have been implemented, the teaching contents envisaged by RD318/2000 and those provided for in the regulations brought in by the AC will continue to apply.

There are studies addressing the training of sports instructors in general (García, 2002; González, 2011; Instituto Nacional de las Cualificaciones and Consejo Superior de Deportes, 2007; Projet Vocasport, 2004) as well as analysis of the applicable Spanish legal system for active tourism (Nasarre, 2000, 2008; Inglés & Seguí, 2012a; Bonnet et al., 2018). Even so, the status of sports instructors, their conditions of employment and the prevailing scenario with regard to the regulation of what they teach is under-addressed in the literature (García, 2002) and for the moment there is a shortage of research analysing contents, specific competencies and syllabuses in the legislative texts concerning the OSPA instructor qualification.

Exhaustive assessment of the current situation of technical training in OSPA is warranted on account of the increased number of practitioners and sportspersons, the need to train professionals, the growing number of SRSE students, its uneven implementation and the new legislation enacted.

This context provides the rationale for this article, which sets out to analyse and compare the state-wide regulations to the regulatory developments in the AC in SI and HSI qualifications in the mountaineering and climbing sports speciality by analysing both the previous syllabuses and the new ones.

Methodology

Systematic and exhaustive analysis was performed of the content of the state-wide regulations and the corresponding regulations implemented by the AC governing qualifications in SI and HSI for mountaineering and climbing sports that were applicable until 2019 as well as of the regulations for the new qualifications. Table 1 details the state-wide regulatory framework analysed along with the corresponding regulatory implementation enacted by the AC to establish the relevant syllabuses (cells with a diagonal line through them denote the absence of any regulation).

Table 1
State-wide regulatory framework and regulatory implementation by the AC with regard to the sports instructor and higher sports instructor qualifications in the mountaineering and climbing sports speciality.

	SI1	SI2				HSI		
		High Mountain	Walk-up	Canyons	Climbing	High Mountain	Climbing	Ski Mountaineering
ARAGON	Order of 22 September 2006, by the Department of Education, Culture and Sports, establishing the syllabuses and specific examinations for access to the sports instructor qualifications in the Mountaineering and Climbing specialities in the Autonomous Community of Aragon					Order of 26 April 2002, by the Department of Education and Science, establishing, experimentally, the syllabuses and specific examinations for access to the sports instructor and higher sports instructor qualifications in the Mountaineering and Climbing specialities in the Autonomous Community of Aragon		
CATALONIA	Decree 243/2003 of 8 October, establishing the syllabuses and regulating the specific examinations for access to the sports instructor qualifications in the following mountaineering and climbing sport specialities: high mountain, canyoning, climbing and mountaineering							
AUTONOMOUS COMMUNITY OF MADRID	Order 3198/2003 of 11 June, of the Autonomous Department of Education, establishing the syllabuses and the specific examinations for access to the courses of education for obtaining the Sports Instructor and Higher Sports Instructor qualifications in the Mountaineering and Climbing sports specialities Order 3694/2009, of 28 July, establishing, for the Autonomous Community of Madrid, the time distribution of Special-Regime Sports Education in Athletics, Basketball, Handball, Winter Sports, Mountaineering Sports and Climbing and Football							
ANDALUSIA	Decree 169/2006 of 26 September, establishing the syllabuses, requirements and specific examinations for access to the Sports Instructor qualifications in the mountaineering and climbing sports specialities and Higher Sports Instructor in the mountaineering and climbing sports specialities							
ASTURIAS	Decree 88/2005 of 3 August, establishing the syllabuses and regulating the specific examinations and requirements for access to the courses for obtaining the qualifications of Sports Instructor and Higher Sports Instructor in the specialities of Mountaineering and Climbing Sports in Asturias							
BASQUE COUNTRY	Decree 173/2010 of 29 June, establishing the syllabus corresponding to the courses of education of Sports Instructor and Higher Sports Instructor in the specialities of Mountaineering and Climbing Sports and governing the corresponding examinations and access requirements							
CANTABRIA	Order ECD/7/2012 of 3 February, establishing the syllabuses and regulating the specific access examinations and sports requirements for obtaining the Sports Instructor and Higher Sports Instructor qualifications in the specialities of Mountaineering and Climbing Sports in the Autonomous Community of Cantabria							
BALEARICS	Decree 104/2006 of 7 December 2006, establishing the syllabuses, examinations and access requirements for obtaining the Sports Instructor and Higher Sports Instructor qualifications in the specialities of Mountaineering and Climbing Sports	Decree 104/2006 of 7 December 2006, establishing the syllabuses, examinations and access requirements for obtaining the Sports Instructor and Higher Sports Instructor qualifications in the specialities of Mountaineering and Climbing Sports				Decree 104/2006 of 7 December 2006, establishing the syllabuses, examinations and access requirements for obtaining the Sports Instructor and Higher Sports Instructor qualifications in the specialities of Mountaineering and Climbing Sports		

Source: own compilation

Table 1 *(continuation)*
State-wide regulatory framework and regulatory implementation by the AC with regard to the sports instructor and higher sports instructor qualifications in the mountaineering and climbing sports speciality.

	SI1	SI2				HSI		
		High Mountain	Walk-up	Canyons	Climbing	High Mountain	Climbing	Ski Mountaineering
AUTONOMOUS COMMUNITY OF NAVARRA	Autonomous Decree 110/2014 of 19 November, establishing the structure and the syllabus of the sports instructor qualification in walk-up for special-regime sports education in the Autonomous Community of Community of Navarra		Autonomous Decree 110/2014 of 19 November, establishing the structure and the syllabus of the sports instructor qualification in walk-up for special-regime sports education in the Autonomous Community of Navarra		Autonomous Decree 100/2017 of 8 November, establishing the structure and the syllabus of the sports instructor qualification in climbing for special-regime sports education in the Autonomous Community of Navarra			
TERRITORIES DIRECTLY MANAGED BY THE MINISTRY	Order ECI/858/2005 of 28 March, establishing, for the territorial sphere under the direct management of the Ministry of Education and Science, the syllabuses and the examinations and access requirements corresponding to the Sports Instructor and Higher Sports Instructor qualifications in Mountaineering and Climbing Sports							
EXTREMADURA								
THE CANARIES								
CASTILE AND LEÓN								
CASTILE LA MANCHA								
MURCIA								
VALENCIAN COMMUNITY								
GALICIA								
LA RIOJA								
STATE-WIDE LEGISLATION	Royal Decree 318/2000 of 3 March, establishing the Sports Instructor and Higher Sports Instructor qualifications in the specialities of Mountaineering and Climbing Sports, approving the corresponding minimum content content and regulating the examinations for access to these courses (in force until 2019) Royal Decree 701/2019 of 29 November, establishing the Higher Sports Instructor qualifications in High Mountaineering and Higher Sports Instructor in Climbing and setting the core syllabuses and access requirements Royal Decree 702/2019 of 29 November, establishing the qualifications for Sports Instructor in Canyoning, Sports Instructor in Climbing and Sports Instructor in Walk-up and setting the core syllabuses and access requirements							

Source: own compilation

Results

1. Identification of the qualifications, organisation of teaching and equivalences between qualifications

In the qualifications in force until 2019, all the AC regulations were limited to the two-degree and three-training-level structure provided for by the state-wide regulations. Nevertheless, different names were sometimes given to the same qualification: *certificado de primer nivel de técnico deportivo* [first-level sports instructor certificate] (SI1). This was known as *primer nivel de excursionismo* [first-level hiking] (Catalonia), *certificado de iniciador de montañismo* [mountaineering introduction certificate] (Asturias) and *primer nivel de TD en media montaña* [first level higher instructor in walk-up] (Navarra) to name but a few. The new and currently applicable RD702/2019 proposes standardisation under the name of *ciclo inicial de grado medio en senderismo* [Initial vocational training in hill walking] (IVTWalking); as yet, it is unknown whether this name will be universally adopted until the AC have developed their own syllabuses.

The new teaching courses have dispensed with the high mountain SI and the ski mountaineering HSI, providing solely the IVTWalking, medium-level vocational training in hill-walking, climbing and walk-up (MLVTCanyons, MLVTClimbing and MLVTWalk-up, respectively) and advanced vocational training in climbing and high mountain (AVTClimbing and AVTHigh).

It should be noted that the new regulations provide for specialisations within each qualification (Table 3), although the objectives, content and evaluation criteria have not yet been established.

Table 2
Organisation of teaching courses in force between 2000 and 2019.

Organisation of previous teaching courses (RD318/2000)		
SI1 HIKING	SI2 CANYONING	-
	SI2 CLIMBING	HSI CLIMBING
	SI2 WALK-UP	-
	SI2 HIGH MOUNTAIN	HSI SKI MOUNTAINEERING HSI HIGH MOUNTAIN

Source: own compilation based on the regulations analysed

Table 3
Organisation of the new teaching courses: vocational training and specialisations by type.

Organisation of new teaching courses (RD701/2019 and RD702/2019)		
IVT HILL WALKING	MLVT CANYONS a) Path marking b) Adapted canyoning c) Interpretation of the environment d) Interpretation of natural heritage e) New trends in canyoning	-
	MLVT CLIMBING a) Path marking b) Climbing guide c) Interpretation of the environment d) Interpretation of natural heritage e) Rock climbing f) Indoor climbing	AVT CLIMBING a) Adapted climbing
	MLVT WALK-UP a) Path marking b) Interpretation of the environment c) Interpretation of natural heritage d) Nordic walking e) Adapted walk-up f) Mountain survival	AVT HIGH MOUNTAIN a) Adapted high mountain b) High mountain guide

Source: own compilation based on the regulations analysed

With regard to the equivalences between qualifications, SI1 is equivalent to IVTWalking; the previous second-level SI qualifications (SI2) are equivalent to the new MLVT (except the high-mountain SI2, which no longer exists) and the previous higher sports instructor (HSI) qualifications are equivalent to the new AVT (except for the ski mountaineering HSI, which no longer exists). Any person already qualified will enjoy the same professional and academic effects that are provided for in the new legislation (third additional provision of RD701/2019; fourth additional provision of RD702/2019). Now that the high-mountain SI2 no longer exists, two qualifications (MLVT climbing and MLVT walk-up) or the former high-mountain SI2 will now be necessary to be eligible for the new High Mountain AVT.

It does not clarify where the qualifications that no longer exist (high-mountain SI2 and ski mountaineering HSI) fit into the professional sphere.

2. Professional profile

With regard to the qualifications effective up until 2019, the professional profile was established on the basis of competencies, professional skills, location in the sports field and responsibility in work situations. The regulations of the AC and the RD318/2000 were analysed, it transpiring that the structure presented overlapping and on occasions contradictory information in different sections: for example, for the climbing SI2, the possibility of practising on "difficult" routes up to 3500 m (Annex III, 4.4 of RD318/2000) whereas in another part of the text, "very difficult" routes of up to 3500 m were cited too (Annex III, 4.3 of RD318/2000).

The analysis of the SI1 professional profile showed that the Basque Country, Catalonia, Aragon and Navarra did not textually cite the units of competency and professional skills of the state-wide regulation, using different wordings and/or additions (pertaining to gender equality, the promotion of hiking activities, informing about the characteristics of the route and the area, natural values, environmental protection regulations, the necessary equipment, etc.).

The analysis of the SI2 yielded differences in the wording and the units of competency and professional skills added and/or removed from the state-wide regulation.

For example, Catalonia added SI2 high-mountain competencies that did not appear in the state-wide regulations with regard to informing the group about the scheduled route using maps, providing information about nature and culture, suitable equipment and maintenance and other points. It was the only AC which specified, for the walk-up SI2, the possibility of engaging in high-mountain activities in summer (Annex 6, 3; Decree 243/2003), a competency not provided for in RD318/2000. Mention should be made of the inconsistency in the type of canyon where the SI2 qualification could be used; only Andalusia and Aragon provided for practice in horizontal and dry canyons, whereas Catalonia also provided for practice on low ground, walk-up and unspecified terrain. The new legislation clarifies this point by explicitly referring to competency in dry and water canyons.

A lack of terminological consistency was also observed, since certain AC used both the "*excursionismo*" [hiking] and "*senderismo*" [hill-walking/rambling] terms, and some other concepts were not clear either. The new regulations clarify this point by adding a glossary (Annex I, RD702/2019).

The HSI analysis showed a textual citation of the units of competency and professional skills (except for Andalusia, removing the professional skill pertaining to the design, planning and management of ski mountaineering competitions).

The new qualifications define professional profile on the basis of general competency and professional, personal and social competencies. Relevant changes of competencies are made; previously holders of the SI1 could not practise without the supervision of an SI or HSI whereas the new legislation dispenses with this restriction. Now, a person holding the IVTWalking qualification can cooperate in controlling safety in adventure parks in trees or artificial structures and can also facilitate free-time and environmental education activities.

The MLVTCanyons takes on greater competencies such as the design and installation of equipment in canyoning itineraries, equipped via ferratas and adventure parks, the design of hill-walking teaching programmes, progression, orientation in delimited natural spaces, camping and introduction to climbing.

The former climbing SI2 was qualified to guide in non-equipped via ferratas, clear or adventure terrain, whereas the new MLVTClimbing loses this competency; however, they are qualified to equip and secure controlled adventure spaces, equip or re-equip rock-climbing routes and design climbing itineraries for climbing walls or artificial structures.

Unlike the previous regulation, a person holding an MLVTCanyons and/or MLVTClimbing qualification will now be able to operate as a guide in low-mountain and walk-up activities in summer and equipped via ferratas (the level of difficulty is not specified). The three MLVT qualifications will be entitled to monitor safety in adventure parks and trees and will be able to facilitate and organise free-time activities within the general programming of hill-walking and walk-up activities in summer.

In accordance with the foregoing, a person holding the previous SI2 climbing qualification will now automatically have the new competencies of the new qualification without actually having studied them (for example, low-mountain and walk-up guides in summer, via ferratas, etc.) and will

also retain the previous qualifications, meaning that a person qualified according to the previous syllabus now has more competencies.

Unlike the previous qualifications in HSI, the AVTHigh clarifies competencies in ice climbing and the training of mountaineering and climbing instructors, whereas the AVTClimbing clarifies competencies in designing and equipping climbing routes (high difficulty).

3. Professional, occupational and sports environment

Previous qualifications specified the type of organisations in which it was possible to practise. In this regard, differences were also observed between the AC: five of them provided for the possibility of practising in the areas of free-time, leisure and active tourism, for which no provision whatsoever was made in the state-wide regulations. The new legislation remedies this heterogeneity by stipulating the sectors pertaining to sport, leisure, free-time and tourism and also detailing where they can be practised (for example, rural accommodation, campsites, hostels, etc.).

The previous qualifications did not detail the main activities that could be carried out; only Catalonia did so. The new legislation does establish the most relevant jobs for each qualification (Table 4).

4. Total teaching time. Time distribution

With regard to the above qualifications, the total teaching time provided for by the state-wide regulations and the corresponding AC regulatory developments was analysed. Heterogeneity was found for the same levels, meaning that the time required to obtain the same qualification could be lower or higher depending on the AC (in bold in Table 5). The total duration envisioned by the new legislation was also included, showing a marked increase in teaching hours in comparison with the previous qualifications.

The modules established by the AC for the same qualification were also different in terms of time distribution. To demonstrate this, the difference, in terms of modules and blocks, between the times provided for in each AC's regulatory development and those provided for in the MC of RD318/2000 was used (Tables 6, 7 and 8). Certain AC

Table 4
Most relevant activities and jobs for each new qualification.

	Most relevant activities and jobs
IVTWalking	a) Guide on low-mountain routes and delimited natural spaces, adventure parks in trees or artificial structures b) Operator in adventure parks in trees or artificial structures
MLVTCanyons	a) Canyon guide b) Summer walk-up guide c) Safety control in adventure parks in trees or artificial structures
MLVTClimbing	a) Climbing instructor b) Climbing school director c) Summer walk-up guide d) Equipped and semi-equipped via ferrata climbing guide e) Safety control in adventure parks in trees or artificial structures
MLVTWalk-up	a) Low-mountain, walk-up and Nordic-type snow-covered ground guide b) Trainer in beginners' and advanced mountaineering sports c) Safety control in adventure parks in trees or artificial structures
AVTClimbing	a) Climbing instructor b) Climbing school teacher c) Technical director d) Trainer of medium- and higher-level climbing instructors e) Climbing centre manager f) Event organiser in the speciality
AVTHigh	a) High-mountain guide b) High-mountain school teacher c) Mountaineering instructor d) Trainer of medium- and higher-level instructors e) Mountaineering school manager f) High-mountain activities organiser g) Technical director

Source: own compilation based on the regulations

Table 5
Comparison of the total duration of teaching courses in force until 2019 as established by RD318/2000 and by the regulatory implementation of each AC and total duration of the new qualifications.

	Qualifications in force until 2019							
		SI2				HSI		
	SI1	High mountain	Walk-up	Canyons	Climbing	High mountain	Climbing	Ski mountaineering
RD318/2000	420	680	555	555	630	755	755	755
ARAGON	420	680	555	555	630	755	710	710
CATALONIA	420	680	555	555	630			
AUTONOMOUS COMMUNITY OF MADRID	420	680	555	555	630	755	755	755
ANDALUSIA	420	680	555	555	630	780	780	780
ASTURIAS	420	680	555	555	630	755	755	755
BASQUE COUNTRY	450	930	615	600	680	735	650	650
CANTABRIA	420	680	555	555	630	755	755	755
BALEARICS	420		555	555	630		755	
NAVARRA	450		630		670			
ECI/858/2005	420	680	555	555	630	755	755	755
	New qualifications							
		MLVT				AVT		
	IVTWalking		Walk-up	Canyons	Climbing	High mountain	Climbing	
RD702/2019 and RD701/2019	570		690	870	1005	1175	885	

Source: own compilation based on the regulations analysed.

Table 6
Previous teaching: time distribution, difference with MC. Level: SI1.

	SI1 of mountaineering and climbing sports																					
Minimum content (hours) and difference (hours) between the AC and the MC	MC		ARAGON		CATALONIA		AUTONO-MOUS COMMUNITY OF MADRID		ANDALUSIA		ASTURIAS		BASQUE COUNTRY		CANTABRIA		BALEARICS		A.C. NAVARRA		ECI/858	
	hours		Difference (hours)																			
CB	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P
The anatomical and physiological basics of sport	15	0	5	0	5	0	25	0	5	10	0	0	0	0	0	0	0	0	0	0	0	0
The psycho-pedagogical basics of teaching and sports training	10	0	5	5	15	0	5	5	0	5	5	5	0	5	0	5	0	5	0	5	0	5
Sports training	10	5	5	0	10	5	0	10	5	10	0	5	5	5	0	5	0	5	5	5	0	5
The sociological basics of sport	5	0	0	0	0	0	5	0	10	0	5	0	0	0	0	0	0	0	0	0	0	0
Sports organisation and legislation	5	0	0	0	0	0	5	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0
First aid and hygiene in sports	10	5	10	5	15	5	5	15	0	5	15	10	30	5	20	10	20	10	30	5	20	10
Teaching time per block	55	10	25	10	45	10	45	30	25	30	30	20	35	15	20	20	20	20	35	15	20	20
	65		35		55		75		55		50		50		40		40		50		40	
SB	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P
Professional development	5	0	0	0	5	0	5	0	0	0	5	0	15	0	5	5	5	0	10	0	0	0
Technical training in mountaineering	15	20	0	40	10	0	5	30	0	30	5	15	0	40	10	10	5	30	10	35	0	40
The mountain environment	5	5	10	5	25	5	5	15	0	15	5	10	0	15	15	10	0	15	5	5	0	15
Mountaineering safety	10	10	0	10	0	0	-5	15	5	10	5	10	0	15	10	5	5	10	5	15	0	15
Group didactics and dynamics					10	10																
Teaching time per block	35	35	10	55	50	15	10	60	5	55	20	35	15	70	40	30	15	55	30	55	0	70
	70		65		65		70		60		55		85		70		70		85		70	
Complementary Block	15		20		0		5		5		15		15		10		10		15		10	
Practical Training Block	80		70		70		50		70		70		70		70		70		70		70	
Total Teaching time	230		190		190		190		190		190		220		190		190		220		190	

Source: own compilation based on the regulations

Table 7
Previous teaching courses: time distribution, difference with MC. Level: SI2.

Minimum content (hours) and difference (hours) between the AC and the MC	SI2 High Mountain																					
	MC		ARAGON		CATALONIA		AUTO-NOMOUS COMMU-NITY OF MADRID		ANDALUSIA		ASTURIAS		BASQUE COUNTRY		CANTABRIA		BALEARICS		A.C. NAVARRA		ECI/858	
	hours		Difference (hours)																			
CB	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P
The anatomical and physiological basics of sport II	25	0	5	5	15	0	0	20	0	10	0	5	5	5	0	5					0	5
The psycho-pedagogical basics of teaching and training II	15	0	5	5	30	0	5	10	10	10	0	5	5	5	0	5					0	5
Sports training II	15	10	5	5	15	0	0	20	5	10	0	5	15	5	0	5					0	5
Sports organisation and legislation II	5	0	0	0	0	0	10	0	5	0	5	0	0	0	0	0					0	0
Sports theory in sociology	10	0	0	0	10	0	5	0	5	0	0	0	0	0	0	0					0	0
Teaching time per block	70	10	15	15	70	0	20	50	25	30	5	15	25	15	0	15					0	15
	80		30		70		70		55		20		40		15						15	
SB	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P
Leading people in mountaineering and ski mountaineering	5	15	0	85	5	5	0	10	0	10	5	20	5	135	5	25					0	15
Professional development of the instructor of the speciality	5	0	5	0	5	0	10	0	10	0	5	0	5	0	2	10					5	0
Training in climbing and ski mountaineering	5	5	0	5	5	5	0	5	0	0	5	0	0	15	3	15					0	0
Training in mountaineering	5	0	0	5	5	10	0	10	0	5	0	5	0	20	0	5					0	5
Technical training and methodology of mountaineering teaching	5	30	5	20	5	5	5	50	10	50	15	40	5	70	10	30					0	65
Technical training and methodology of ski mountaineering teaching	5	30	5	20	5	5	5	50			10	40	5	70	10	25					0	65
Technical training and methodology of climbing teaching					25	40																
Technical training in mountain progression									10	50												
The mountain environment II	5	10	0	5	5	0	5	10	10	10	10	15	0	15	10	15					0	15
Safety in the sport	5	20	0	20	5	5	10	10	5	20	15	15	5	80	5	20					0	20
The psychology of mountaineering and climbing sports					10	0																
Teaching time per block	40	110	15	160	75	75	35	145	40	115	65	135	25	405	45	145					5	185
	150		175		150		180		155		200		430		190						190	
Complementary Block	25		20		5		5		15		5		5		20						20	
Practical Training Block	110		90		90		60		90		90		90		90						90	
Total teaching time	365		315		315		315		315		315		565		315						315	

Source: own compilation based on the regulations

Table 7 *(continuation)*
Previous teaching courses: time distribution, difference with MC. Level: SI2.

	SI2 walk-up																				
Minimum content (hours) and difference (hours) between the AC and the MC	MC		ARAGON		CATALONIA		AUTO-NOMOUS COMMU-NITY OF MADRID		ANDALUSIA		ASTURIAS		BASQUE COUNTRY		CANTABRIA		BALEARICS		A.C. NAVARRA		ECI/858	
	hours		Difference (hours)																			
CB	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T&P		T	P	T	P
The anatomical and physiological basics of sport II	25	0	5	5	15	0	0	20	0	10	0	5	5	5	0	5	5		5	5	0	5
The psycho-pedagogical basics of teaching and training II	15	0	5	5	30	0	5	10	10	10	0	5	5	5	0	5	5		5	5	0	5
Sports training II	15	10	5	5	15	0	0	20	5	10	0	5	15	5	0	5	5		15	5	0	5
Sports organisation and legislation II	5	0	0	0	0	0	10	0	5	0	5	0	0	0	0	0	0		0	0	0	0
Sports theory and sociology	10	0	0	0	10	0	5	0	5	0	0	0	0	0	0	0	0		0	0	0	0
Teaching time per block	70	10	0	15	70	0	20	50	25	30	5	15	25	15	0	15	15		25	15	0	15
	80		30		70		70		55		20		40		15				40		15	
SB	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T&P		T	P	T	P
Leading in walk-up	5	15	0	30	0	5	5	5	5	5	5	15	0	20	5	15	5		5	35	0	20
Professional development of the walk-up instructor	5	0	5	0	5	0	10	0	5	0	5	0	5	0	2	10	5		5	0	5	0
Training in mountaineering	5	5	0	0	5	5	0	5	0	0	5	5	0	0	3	5	10		0	0	0	0
Technical training in mountain progression	5	20	0	25	15	15	15	30	10	25	15	35	0	45	15	20	65		10	45	0	45
The mountain environment II	5	10	10	20	5	0	10	20	15	20	10	15	0	50	10	15	10		5	15	0	50
Safety in the sport	5	10	0	20	5	15	15	0	0	5	10	15	5	50	10	15	30		15	55	0	5
The psychology of mountaineering and climbing sports					10	0																
Teaching time per block	30	60	15	95	45	40	55	60	35	55	50	85	10	165	45	80	125		40	150	5	120
	90		110		85		115		90		135		175		125				190		125	
Complementary Block	25		20		5		5		15		5		5		20		20		5		20	
Practical Training Block	110		90		90		60		90		90		90		90		90		90		90	
Total teaching time	305		250		250		250		250		250		310		250		250		325		250	

Source: own compilation based on the regulations

Table 7 *(continuation)*
Previous teaching courses: time distribution, difference with MC. Level: SI2.

	SI2 Canyoning																					
Minimum content (hours) and difference (hours) between the AC and the MC	MC		ARAGON		CATALONIA		AUTO-NOMOUS COMMU-NITY OF MADRID		ANDALUSIA		ASTURIAS		BASQUE COUNTRY		CANTABRIA		BALEARICS	A.C. NAVARRA		ECI/858	
	hours		Difference (hours)																			
CB	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T&P	T	P	T	P
The anatomical and physiological basics of sport II	25	0	5	5	15	0	0	20	0	10	0	5	5	5	0	5	5			0	5
The psycho-pedagogical basics of teaching and training II	15	0	5	5	30	0	5	10	10	10	0	5	5	5	0	5	5			0	5
Sports training II	15	10	5	5	15	0	0	20	5	10	0	5	15	5	0	5	5			0	5
Sports organisation and legislation II	5	0	0	0	0	0	10	0	5	0	5	0	0	0	0	0	0			0	0
Sports theory and sociology	10	0	0	0	10	0	5	0	5	0	0	0	0	0	0	0	0			0	0
Teaching time per block	70	10	15	15	70	0	20	50	25	30	5	15	25	15	0	15	15			0	15
	80		30		70		70		55		20		40		15					15	
SB	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T&P	T	P	T	P
Leading in canyons	5	10	5	45	5	10	0	15	0	20	5	20	0	30	5	30	10			0	30
Professional development of the instructor of the speciality	5	0	5	0	5	0	10	0	5	0	5	0	5	0	2	10	5			5	0
Canyon descent training	5	5	0	0	0	0	0	5	0	0	5	5	0	10	0	2	0			0	10
Technical training and methodology of canyon descent teaching	5	20	5	35	15	20	20	30	10	30	15	35	0	60	5	35	95			0	60
The canyon environment	10	5	-5	10	0	5	5	10	5	10	5	20	0	10	0	6	10			0	10
Safety in the sport	5	15	0	10	5	10	5	15	0	10	10	10	0	45	5	25	5			0	10
The psychology of mountaineering and climbing sports					10	0															
Teaching time per block	35	55	10	100	40	45	40	75	20	70	45	90	5	155	17	108	125			5	120
	90		110		85		115		90		135		160		125					125	
Complementary Block	25		20		5		5		15		5		5		20		20			20	
Practical Training Block	110		90		90		60		90		90		90		90		90			90	
Total teaching time	305		250		250		250		250		250		295		250		250			250	

Source: own compilation based on the regulations

Table 7 *(continuation)*
Previous teaching courses: time distribution, difference with MC. Level: SI2.

	SI2 Climbing																					
Minimum content (hours) and difference (hours) between the AC and the MC	MC		ARAGON		CATALONIA		AUTO-NOMOUS COMMU-NITY OF MADRID		ANDALUSIA		ASTURIAS		BASQUE COUNTRY		CANTABRIA		BALEARICS	A.C. NAVARRA		ECI/858	
	hours		Difference (hours)																		
CB	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T&P	T	P	T	P
The anatomical and physiological basics of sport II	25	0	5	5	15	0	0	20	0	10	0	5	5	5	0	5	5	5	5	0	5
The psycho-pedagogical basics of teaching and training II	15	0	5	5	30	0	5	10	10	10	0	5	5	5	0	5	5	5	5	0	5
Sports training II	15	10	5	5	15	0	0	20	5	10	0	5	15	5	0	5	5	15	5	0	5
Sports organisation and legislation II	5	0	0	0	0	0	10	0	5	0	5	0	0	0	0	0	0	0	0	0	0
Sports theory and sociology	10	0	0	0	10	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0
Teaching time per block	70	10	15	15	70	0	20	50	25	30	5	15	25	15	0	15	15	25	15	0	15
	80		30		70		70		55		20		40		15			40		15	
SB	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T&P	T	P	T	P
Leading in climbing	5	10	5	35	5	15	5	10	0	5	10	35	0	35	10	35	10	5	40	0	35
Professional development of the instructor of the speciality	5	0	5	0	5	0	10	0	10	0	5	0	5	0	2	10	5	5	0	5	0
Climbing training	5	5	0	15	10	30	5	15	0	15	10	5	0	15	10	10	10	0	5	0	15
Technical training and methodology of climbing teaching	5	55	10	55	20	-15	20	55	20	55	25	15	0	75	20	15	105	10	45	0	75
The mountain environment in climbing	10	10	-5	10	0	0	5	5	0	5	5	15	0	5	0	5	5	0	15	0	5
Safety in the sport	5	15	0	15	5	0	5	15	0	15	15	30	0	65	8	35	25	15	50	0	25
Climbing facilities equipment					10	25															
The psychology of mountaineering and climbing sports					10	0															
Teaching time per block	35	95	15	130	65	55	50	100	30	95	70	100	5	195	50	110	160	35	155	5	155
	130		145		120		150		125		170		200		160			190		160	
Complementary Block	25		20		5		5		15		5		5		20		20	5		20	
Practical Training Block	110		90		90		60		90		90		90		90		90	90		90	
Total teaching time	345		285		285		285		285		285		335		285		285	325		285	

Source: own compilation based on the regulations

Table 8
Previous teaching courses: time distribution, difference with MC. Level: HSI.

Minimum content (hours) and difference (hours) between the AC and the MC	HSI High-Mountain																	
	MC		ARAGON		AUTONOMOUS COMMUNITY OF MADRID		ANDALUSIA		ASTURIAS		BASQUE COUNTRY		CANTABRIA		BALEARICS		ECI/858	
	hours		difference (hours)															
CB	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P
The biomechanics of sport	10	5	0	5	3	2	10	5	0	5	0	5	0	5			0	5
High-performance training	15	15	5	0	2	3	15	10	5	5	5	5	5	5			5	5
The physiology of effort	15	5	5	5	12	3	10	5	5	5	5	5	5	5			5	5
Sports management	25	0	0	0	0	0	5	10	5	5	-5	5	5	5			5	5
High-performance psychology	5	5	10	0	8	7	15	-5	5	0	5	0	5	0			5	0
High-performance sports sociology	10	0	5	5	5	0	10	0	0	5	0	0	0	5			0	5
Teaching time per block	80	30	25	15	30	15	65	25	20	25	10	20	20	25			20	25
	110		40		45		90		45		30		45				45	
SB	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P
Leading in mountaineering and ski mountaineering II	5	15	5	20	5	20	5	15	5	35	0	60	5	35			0	20
Professional development of the HSI	15	0	15	0	15	0	10	0	0	10	0	0	0	10			10	0
Mountaineering training II	5	10	5	45	20	10	20	10	10	20	0	40	10	20			0	40
Technical training in ski mountaineering II	5	20	0	20	5	20	5	30	20	20	0	30	20	20			0	30
Mountaineering techniques optimisation	15	25	5	25	-5	25	-5	25	10	30	0	25	10	30			0	35
Teaching time per block	45	70	30	110	40	75	35	80	45	115	0	155	45	115			10	125
	115		140		115		115		160		155		160				135	
Complementary Block	40		35		45		35		10		10		10				35	
Practical Training Block	110		90		90		90		90		90		90				90	
Final-year project	40		35		45		35		35		35		35				35	
Total teaching time	415		340		340		365		340		320		340				340	

Source: own compilation based on the regulations

Table 8 *(continuation)*
Previous teaching courses: time distribution, difference with MC. Level: HSI.

Minimum content (hours) and difference (hours) between the AC and the MC	HSI Climbing																
	MC		ARAGON		AUTONOMOUS COMMUNITY OF MADRID		ANDALUSIA		ASTURIAS		BASQUE COUNTRY		CANTABRIA		BALEARICS	ECI/858	
	hours		difference (hours)														
CB	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T&P	T	P
The biomechanics of sport	10	5	0	5	3	2	10	5	0	5	0	5	0	5	5	0	5
High-performance training	15	15	5	0	2	3	15	10	5	5	5	5	5	5	10	5	5
The physiology of effort	15	5	5	5	12	3	10	5	5	5	5	5	5	5	10	5	5
Sports management	25	0	0	0	0	0	5	10	5	5	-5	5	5	5	10	5	5
High-performance psychology	5	5	10	0	8	7	15	-5	5	0	5	0	5	0	5	5	0
High-performance sports sociology	10	0	5	5	5	0	10	0	0	5	0	0	0	5	5	0	5
Teaching time per block	80	30	25	15	30	15	65	25	20	25	10	20	20	25	45	20	25
	110		40		45		90		45		30		45			45	
SB	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T&P	T	P
Leading in mountaineering and ski mountaineering															5	10	30
Professional development of the HSI	15	0	5	10	20	10	10	20	0	10	0	0	0	10	10	0	10
Climbing training II	25	25	5	45	5	35	10	30	15	60	0	35	15	65	30	0	50
Mountaineering technique optimisation	25	25	5	25	5	40	5	40	20	55	0	35	15	55	95	0	35
Teaching time per block	65	50	15	80	30	85	25	90	35	125	0	70	30	130	135	10	125
	115		95		115		115		160		70		160			135	
Complementary Block	40		35		45		35		10		10		10		35	35	
Practical Training Block	110		90		90		90		90		90		90		90	90	
Final-year project	40		35		45		35		35		35		35		35	35	
Total teaching time	415		295		340		365		340		235		340		340	340	

Source: own compilation based on the regulations

Table 8 *(continuation)*
Previous teaching courses: time distribution, difference with MC. Level: HSI.

Minimum content (hours) and difference (hours) between the AC and the MC	HSI Ski mountaineering																
	MC		ARAGON		AUTONOMOUS COMMUNITY OF MADRID		ANDALUSIA		ASTURIAS		BASQUE COUNTRY		CANTABRIA		BALEARICS	ECI/858	
	hours		difference (hours)														
CB	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T&P	T	P
The biomechanics of sport	10	5	0	5	3	2	10	5	0	5	0	5	0	5		0	5
High-performance training	15	15	5	0	2	3	15	10	5	5	5	5	5	5		5	5
The physiology of effort	15	5	5	5	12	3	10	5	5	5	5	5	5	5		5	5
Sports management	25	0	0	0	0	0	5	10	5	5	-5	5	5	5		5	5
High-performance psychology	5	5	10	0	8	7	15	-5	5	0	5	0	5	0		5	0
High-performance sports sociology	10	0	5	5	5	0	10	0	0	5	0	0	0	5		0	5
Teaching time per block	80	30	25	15	30	15	65	25	20	25	10	20	20	25		20	25
	110		40		45		90		45		30		45			45	
SB	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T&P	T	P
Leading in mountaineering and ski mountaineering II																10	25
Professional development of the HSI	15	0	5	10	20	10	10	20	0	10	0	0	0	10		0	10
Technical training in ski mountaineering II	25	25	5	45	5	35	10	30	15	60	0	35	15	65		0	50
Ski mountaineering technique optimisation	25	25	5	25	5	40	5	40	20	55	0	35	15	55		0	40
Teaching time per block	65	50	15	80	30	85	25	90	35	125	0	70	30	130		10	125
	115		95		115		115		160		70		160			135	
Complementary Block	40		35		45		35		10		10		10			35	
Practical Training Block	110		90		90		90		90		90		90			90	
Final-year project	40		35		125		35		35		35		35			35	
Total teaching time	415		295		340		365		340		235		340			340	

Source: own compilation based on the regulations

allocated times that were well above the MC to their syllabuses, whereas others allocated fewer hours than those provided for in the state-wide regulations. The major differences in the times allocated to the different blocks by the AC are shown below: Common Block, Specific Block, Complementary Block, Practical Training Block and Final-Year Project (hereinafter: CB, SB, ComplB, PTB and FYP, respectively) (Tables 6, 7 and 8).

The new legislation establishes a core syllabus. At the time of writing of this article, no AC had published its own syllabus. It should be mentioned that the new training will be divided solely into CB and SB, meaning a simplification of the previous structure.

5. Teaching modules

For the above qualifications, the differences between the modules established in the AC regulations and those provided for in the state-wide regulations were analysed (RD 318/2000). The state-wide regulations stipulate that the AC "may complete the syllabus in each one of the specialities with other modules different to the ones provided for in this Royal Decree" (Art. 11.2 of RD318/2000).

On the one hand, it transpired that certain AC were teaching modules that were not proposed in the state-wide regulation: Catalonia was the only autonomous community where "Group didactics and dynamics", "The psychology of mountaineering sports and climbing", "Climbing facilities equipment" and "Technical training and methodology of climbing teaching" were taught (they are not provided for in RD318/2000). It should be noted that Andalusia did not teach "Technical training and methodology of ski mountaineering teaching" and was the only autonomous community that offered "Technical training in mountain progression". Certain modules are given different names in different AC, for example "Safety and risk management" in Aragon (called "Safety in sports" in the state-wide regulation) and "Knowledge of the environment" in Catalonia (this name replaces "The canyon environment").

On the other hand, the HSI qualifications of all the sports are homogeneous: all the AC have the same modules, coinciding with RD318/2000 (except for Order ECI/858/2005, of 28 March, in which a module that is not contained in RD318/2000 is taught in HSI Ski mountaineering and Climbing "Leading in mountaineering and ski mountaineering").

The new teaching courses established by Royal Decrees 701/2019 and 702/2019 have reformulated and changed the structure and the name of the modules to be taught. The modules are grouped into CB and SB. It should be mentioned that there are three same modules for the three MLVT modules in SB, meaning that if someone studies more than one sport they will only have to do these three modules once. The AVT teaching contents share a CB dedicated to high performance and the training of sports trainers. The AVTClimbing SB is comprised of six modules and the AVTHigh of seven, one of which is practical training.

New teaching contents include topics that were formerly studied only in some AC. For example, IVTWalking, "The basics of sports behaviour" now includes contents related to "Group didactics and dynamics", formerly taught in Catalonia alone. In the four MLVT sports, "The basics of sports learning" includes some contents related to "The psychology of mountaineering and climbing sports" and the "Climbing facilities equipment" module, formerly only taught in Catalonia, and these contents are now included in the "Advanced climbing technique" module in MLVTClimbing.

The new state-wide legislation clarifies that the AC "will establish the corresponding syllabuses, observing the provisions" of RD701/2019 (art. 15) and RD702/2019 (art. 28). As yet, it is unknown whether each AC's regulatory development will or will not stick to the module structure provided for by the new regulation.

6. Proportion of theory and practice hours

The previous qualifications (RD318/2000) established a proportion of hours of theory and practice. The regulations developed by the AC established their own distribution of theory and practice hours. Tables 9 and 10 display the percentage of theory and practice hours out of total CB and SB time and the difference between this percentage and the one which is established in the MC. The analysis shows that in the CB and SB of all training levels, most of the AC, had a larger proportion of practical time compared to the proportion established in the MC.

Some AC presented substantial differences in percentage terms compared to the provisions of the MC in RD318/2000 (for example, the highest difference value highlighted in tables 9 and 10). It should be noted that the Balearics AC did not distinguish between theory and practice hours in its regulation of SI2 and TDS (it designed "theoretical-practical" hours), and was therefore not analysed in this section.

Moreover, the new legislation makes provision for a core syllabus which, unlike the previous MC of RD318/2000, makes no distinction between theory and practice.

Table 9

Previous qualifications: Percentage of theory and practice hours out of the total number of hours of CB and SB. Difference with regard to the percentage corresponding to the MC. Level: SI1 and SI2.

% theoretical hours and % practical hours out of the total number of hours and difference between AC and RD318/2000	MC		ARAGON		CATALONIA		AUT. COMMUNITY OF MADRID		ANDALUSIA		ASTURIAS		BASQUE COUNTRY		CANTABRIA		BALEARICS		AUT. COMMUNITY OF NAVARRA		ECI858	
SI1 of Mountain and Climbing Sports																						
CB	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P
% with regard to the total	84.6	15.4	80.0	20.0	83.3	16.7	76.9	23.1	66.7	33.3	73.9	26.1	78.3	21.7	71.4	28.6	71.4	28.6	78.3	21.7	71.4	28.6
difference with regard to MC	.0		-4.6	4.6	-1.3	1.3	-7.7	7.7	-17.9	17.9	-10.7	10.7	-6.4	6.4	-13.2	13.2	-13.2	13.2	-6.4	6.4	-13,2	13,2
SB	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P
% with regard to the total	50.0	50.0	33.3	66.7	63.0	37.0	32.1	67.9	30.8	69.2	44.0	56.0	32.3	67.7	53.6	46.4	35.7	64.3	41.9	58.1	25.0	75.0
difference with regard to MC	.0		-16.7	16.7	13.0	-13.0	-17.9	17.9	-19.2	19.2	-6.0	6.0	-17.7	17.7	3.6	-3.6	-14.3	14.3	8.6	-8.6	-25.0	25.0
SI2 High-Mountain																						
CB	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P
% with regard to the total	87.5	12.5	77.3	22.7	93.3	6.7	60.0	40.0	70.4	29.6	75.0	25.0	79.2	20.8	73.7	26.3					73.7	26.3
difference with regard to MC	.0		-10.2	10.2	5.8	-5.8	-27.5	27.5	-17.1	17.1	-12.5	12.5	-8.3	8.3	-13.8	13.8					-13.8	13.8
SB	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P
% with regard to the total	26.7	73.3	16.9	83.1	38.3	61.7	22.7	77.3	26.2	73.8	30.0	70.0	11.2	88.8	25.0	75.0					13.2	86.8
difference with regard to MC	.0		-9.7	9.7	11.7	-11.7	-3.9	3.9	-0.4	0.4	3.3	-3.3	-15.5	15.5	-1.7	1.7					-13.4	13.4
SI2 walk-up																						
CB	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P
% with regard to the total	87.5	12.5	77.3	22.7	93.3	6.7	60.0	40.0	70.4	29.6	75.0	25.0	79.2	20.8	73.7	26.3			62.5	37.5	73.7	26.3
difference with regard to MC	.0		-10.2	10.2	5.8	-5.8	-27.5	27.5	-17.1	17.1	-12.5	12.5	-8.3	8.3	-13.8	13.8			-25.0	25.0	-13.8	13.8
SB	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P
% with regard to the total	33.3	66.7	22.5	77.5	42.9	57.1	41.5	58.5	36.1	63.9	35.6	64.4	15.1	84.9	34.9	65.1			21.1	78.9	16.3	83.7
difference with regard to MC	.0		-10.8	10.8	9.5	-9.5	8.1	-8.1	2.8	-2.8	2.2	-2.2	-18.2	18.2	1.6	-1.6			-12.3	12.3	-17.1	17.1
SI2 Canyoning																						
CB	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P
% with regard to the total	87.5	12.5	77.3	22.7	93.3	6.7	60.0	40.0	70.4	29.6	75.0	25.0	79.2	20.8	73.7	26.3					73.7	26.3
difference with regard to MC	.0		-10.2	10.2	5.8	-5.8	-27.5	27.5	-17.1	17.1	-12.5	12.5	-8.3	8.3	-13.8	13.8					-13.8	13.8
SB	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P
% with regard to the total	38.9	61.1	22.5	77.5	42.9	57.1	36.6	63.4	30.6	69.4	35.6	64.4	16.0	84.0	24.2	75.8					18.6	81.4
difference with regard to MC	.0		-16.4	16.4	4.0	-4.0	-2.3	2.3	-8.3	8.3	-3.3	3.3	-22.9	22.9	-14.7	14.7					-20.3	20.3
SI2 Climbing																						
CB	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P
% with regard to the total	87.5	12.5	77.3	22.7	93.3	6.7	60.0	40.0	70.4	29.6	75.0	25.0	79.2	20.8	73.7	26.3			79.2	20.8	73.7	26.3
difference with regard to MC	.0		-10.2	10.2	5.8	-5.8	-27.5	27.5	-17.1	17.1	-12.5	12.5	-8.3	8.3	-13.8	13.8			-8.3	8.3	-13.8	13.8
SB	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P
% with regard to the total	26.9	73.1	18.2	81.8	40.0	60.0	30.4	69.6	25.5	74.5	35.0	65.0	12.1	87.9	29.3	70.7			21.9	78.1	13.8	86.2
difference with regard to MC	.0		-8.7	8.7	13.1	-13.1	3.4	-3.4	-1.4	1.4	8.1	-8.1	-14.8	14.8	2.4	-2.4			-5.0	5.0	-13.1	13.1

Source: own compilation

Table 10
Previous qualifications: Percentage of theoretical hours and practical hours out of the total number of hours of CB and SB. Difference with regard to the percentage corresponding to the MC. Level: HSI.

% theoretical hours and % practical hours out of the total number of hours and difference between AC and RD318/2000	MC		ARAGON		AUTONOMOUS COMMUNITY OF MADRID		ANDALUSIA		ASTURIAS		BASQUE COUNTRY		CANTABRIA		ECI858	
HSI High-Mountain																
CB	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P
% with regard to the total	72.7	27.3	70.0	30.0	71.0	29.0	72.5	27.5	64.5	35.5	64.3	35.7	64.5	35.5	64.5	35.5
difference with regard to MC	.0		-2.7	2.7	-1.8	1.8	-.2	.2	-8.2	8.2	-8.4	8.4	-8.2	8.2	-8.2	8.2
SB	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P
% with regard to the total	39.1	60.9	29.4	70.6	37.0	63.0	34.8	65.2	32.7	67.3	16.7	83.3	32.7	67.3	22.0	78.0
difference with regard to MC	.0		-9.7	9.7	-2.2	2.2	-4.3	4.3	-6.4	6.4	-22.5	22.5	-6.4	6.4	-17.1	17.1
HSI Climbing																
CB	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P
% with regard to the total	72.7	27.3	70.0	30.0	71.0	29.0	72.5	27.5	64.5	35.5	64.3	35.7	64.5	35.5	64.5	35.5
difference with regard to MC	.0		-2.7	2.7	-1.8	1.8	-.2	.2	-8.2	8.2	-8.4	8.4	-8.2	8.2	-8.2	8.2
SB	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P
% with regard to the total	56.5	43.5	38.1	61.9	41.3	58.7	39.1	60.9	36.4	63.6	35.1	64.9	34.5	65.5	30.0	70.0
difference with regard to MC	.0		-18.4	18.4	-15.2	15.2	-17.4	17.4	-20.2	20.2	-21.4	21.4	-22.0	22.0	-26.5	26.5
HSI Ski mountaineering																
CB	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P
% with regard to the total	72.7	27.3	70.0	30.0	71.0	29.0	72.5	27.5	64.5	35.5	64.3	35.7	64.5	35.5	64.5	35.5
difference with regard to MC	.0		-2.7	2.7	-1.8	1.8	-.2	.2	-8.2	8.2	-8.4	8.4	-8.2	8.2	-8.2	8.2
SB	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P
% with regard to the total	56.5	43.5	38.1	61.9	41.3	58.7	39.1	60.9	36.4	63.6	35.1	64.9	34.5	65.5	30.0	70.0
difference with regard to MC	.0		-18.4	18.4	-15.2	15.2	-17.4	17.4	-20.2	20.2	-21.4	21.4	-22.0	22.0	-26.5	26.5

Source: own compilation.

Discussion

Previous papers reveal heterogeneity in the legislation governing OSPA in Spain and describe a lack of clarity and consensus (Inglés & Seguí, 2012b), concurring with the results of this article. On the one hand, such heterogeneity may be seen in a positive light as it allows each AC to adapt to their specific needs (Inglés & Seguí, 2012a) and adjust the legislation to the activities performed in each area (Nasarre, 2000). On the other hand, the need for homogenisation emerges in several areas related to OSPA. With regard to qualifications, there is an evident need to promote homogeneity of the different disciplines involved in mountaineering (Nasarre, 2016), which is also endorsed by this paper, since "there is a lack of sufficient awareness to propose regulation by means of a single regulatory instrument for all outdoor sports" (Nasarre, 2016, p. 103). In sports teaching in general, the paper by Madrera et al. (2015) points to the need to review the diverse implementation by the AC. This heterogeneity seems to go beyond Spain and extend to the European Union overall: extensive analysis of vocational training in sports in general was conducted, the conclusion being that there was great diversity in the forms of regulations in place and diversity in sports vocational training and education policies (Projet Vocasport, 2004).

This heterogeneity among regulations also occurs in active tourism (Inglés & Seguí, 2012a) in important areas such as safety, insurance (Mediavilla, 2014), the type of activities regulated and the qualifications required to work as a professional (Bonnet et al., 2018). Generally speaking, the requirements provided for by the different autonomous community regulations do not converge. This means that "national regulation involving minimum contents" because this is a young sector in the process of consolidation (Mediavilla, 2014, p. 85), convergence between regulations (Nasarre, 2008) and the implementation of "legal and economic instruments to standardise" such regulation (Bonnet et al., 2018, p. 53) are all needed. These conclusions are aligned with this study: legislative heterogeneity between AC that runs counter to the state-wide validity of the qualifications. The new legislation that establishes the qualifications partially remedies the aforementioned acknowledged heterogeneity and is an opportunity to establish common lines to consolidate teaching and to ensure that it is tailored to the sector's real needs.

Conclusions

The qualifications that were in force up until 2019 presented an evident heterogeneity between the different AC and the state-wide regulations for SI1 and SI2 in terms of the identification of qualifications, units of competency, professional skills and professional profile. Although there was a majority consensus with regard to location in the sport setting, only some AC provided for and defined the performance of the profession in the areas of free time, leisure and/or active tourism. This generated problems in professional practice and also in boundaries between autonomous communities, mobility between them and also rendering it difficult to draw comparisons with other countries. The current qualifications make provision for names, a structure that defines the professional profile, competencies and professional environment, remedying the gaps and inconsistencies of the previous legislation (provision is now made for via ferratas, clarification is provided in terms of competency in leisure, tourism and free time, as well as with regard to instructors who can be engaged to work as summer walk-up and low-mountain guides, among others). The new regulations have established specialisations, although a structure has yet to be determined. One noteworthy consequence of the equivalences between previous and new qualifications is that differences in competencies between instructors of the same level are created.

In the previous qualifications, some AC added or simply did not teach some of the modules provided for in the state-wide regulation, and some people who trained in different AC have worked professionally although they studied different syllabuses. The new qualifications force the AC to observe the provisions of the state-wide regulations.

Total teaching time and time distribution of modules were heterogeneous across the different AC, meaning that obtaining certain qualifications required more or less time depending on the autonomous community. None of the AC in any training level observed the proportion of theory and practice hours provided for in the MC (RD318/2000). The new regulations also make provision for total course time and a core syllabus that the AC must stick to. No provision is made for separation between theory and practice hours in the new regulation. On the one hand, the AC are free to regulate time distribution. On the other hand, they have no basic guidance for distributing theory and practice and must do so as they see fit, which once again could lead to a situation of widespread heterogeneity.

Mention must also be made of the increased number of hours required to obtain the new qualifications, calling for greater time and financial commitment by students. In turn, problems related to the difficulty in accessing the AVTHigh qualification are heightened since students are obliged to study IVTWalking, MLVTClimbing and MLVTWalk-up with the resulting investment in terms of time and money involved in comparison with the previous qualifications.

With regard to the goal of convergence in professional practise, there is an obvious need for consensus in the main lines (units of competency, professional skills, professional profile, total course duration, modules and time distribution). The new legislation clarifies many of these aspects, although it also raises some questions: Will the AC develop syllabuses for the 2021/22 academic year? Will all the modules provided

for in the state-wide regulations be taught in all the AC? How will hours and the proportion of theory and practice be distributed in the syllabuses ultimately drawn up? When and how will the specialisations be defined; how many teaching hours will be necessary? Will they be compulsory? Will the increased number of teaching hours compared to previous qualifications affect the students' situation? Does the new distribution of competencies, the elimination of two qualifications and the new restructuring truly cater to the needs of instructors, companies and other stakeholders? Moreover, a comparative analysis will need to be performed once the AC have published their own syllabuses.

The comparison of these conclusions with qualitative data that include the appraisal of the situation made by the instructors and entrepreneurs who engage in mountaineering and climbing along with training schools and other stakeholders could be of interest in the future, as might the subsequent application of this analysis to other specialities in technical training in OSPA

Contribution

The contribution made by each author to this research is as follows:

Second author: formulation of the theoretical approach, supervision of the methodological process and review of the final manuscript.

First author: content analysis and drafting of the manuscript.

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