

Sports Practice for University Students with Disabilities: Barriers, Facilitating Factors, and Employability

Raúl Reina, Alba Roldán, Alicia Candela, and Álvaro Carrillo de Albornoz



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Sports Practice for University Students with Disabilities:
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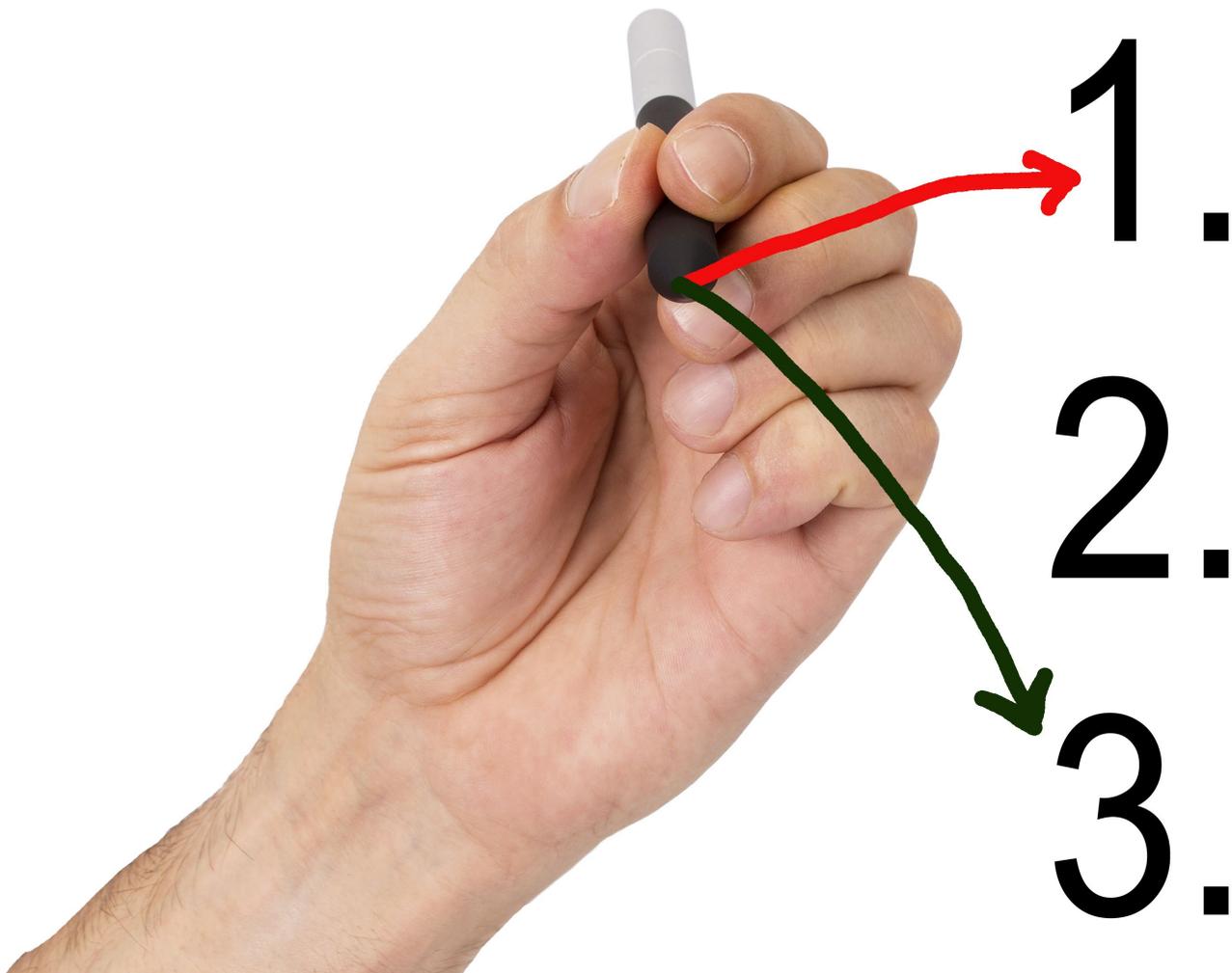


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Chapter 1

Framework and Conceptual Basis for the Study



Chapter 1

Conceptual Basis for the Study



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1. Conceptual Basis for the Study

1.1. PEOPLE FIRST LANGUAGE

Language reflects and describes the way in which we understand the world. The words that we use to refer to what surrounds us will definitely influence, positively or negatively, the attitudes of society and therefore impacting that of others (Collier, 2012). People first language is the way to describe disability, demonstrating a more respectful and precise language, and therefore a more positive attitude. This language consists of putting the “person” or “people” before the disability, preventing us from focusing only on that specific aspect of the person, ignoring the many other attributes that person/people has/have (Snow, 2016).

Throughout this study report, we will use the term **Students with Disabilities (SWD)**, as i) it is the collective object of reference and study, and ii) it is in accordance with the accepted and ratified terminology from the Convention on the Rights of Persons with Disabilities (UN, 2006).



“The difference between the right word and the almost right word is the difference between lightning and a lightning bug” (Mark Twain)

1.2. INTERNATIONAL CLASSIFICATION OF FUNCTIONING, DISABILITY, AND HEALTH

Like language, conceptual models for intervention for people with disabilities have also evolved so that the main focus is no longer centered on the disability itself (i.e., medical model), but rather the focus is on the context where said person is participating (i.e., contextual model). One of the most established contextual models at present is the International Classification of Functioning, Disability, and Health - **ICF**- (WHO, 2001). The ICF represents the framework of the World Health Organization (WHO) to measure health and the degree of disability at the individual and community level. The ICF considers what it calls **contextual factors** that are divided into those that describe the person and those that refer to the context or environment which have a vital role in the personal development and empowerment of the individual. The ICF has allowed for the transformation from a classification based only on the person’s deficits to one based on the person’s own capabilities. In this conceptual framework (Figure 1), the terms **functionality** and **disability** are multidimensional concepts related to:

- a) The **functions and body structures** of the person and the impairments involved with them (at the level of the body or organism). In this work, we will categorize various disability groups without considering the type of structure/function affected or the underlying diagnosis, such as: physical disability (users or non-users of wheelchairs), visual impairment, hearing disability, neurodevelopmental disorders (intellectual disability, autism spectrum disorder...), or psychosocial disability (i.e., mental health).

1. Conceptual Basis for the Study

- b) The **activities** that refer to the person's capability/capabilities to participate in certain tasks and the limitations that they would experience when performing them (at the personal level). In the academic field, we are referring to limitations in reading activities (e.g., blindness or low vision), following the discourse of teaching staff (e.g., auditory disability), or manipulation of instruments in laboratory practices (e.g., impairment of function or structure of limbs), among many others. In the context that concerns us, physical activity and sports, it would be the limitations, and therefore the need for adaptation, in terms of movement or change in direction (e.g., users of wheelchairs), limitations in terms of stability, or coordination of the required motor or sports skills (e.g., running, jumping, hitting, swimming, turning, etc.)
- c) **Participation** refers to the person's observable function and the restrictions that could be experienced (at the individual and/or social level). In the context of this study, for both academics and sports, it refers to elements such as transportation, social accessibility, accessibility to university campuses and their facilities, the layout of classrooms or sports facilities, among others.
- d) The **contextual factors** that impact the experiences mentioned above. If these factors facilitate the person's participation in the activity, they are called "**facilitators**," and if on the contrary, they limit it, they are called "**barriers**." This dimension is the main section of this study insofar as we will analyze the factors that underlie participation in physical and sports activities for university students with disabilities (e.g., offerings, demand, access to information, interest of the organization or university institution, availability of qualified personnel, accessibility to sports facilities, etc.).

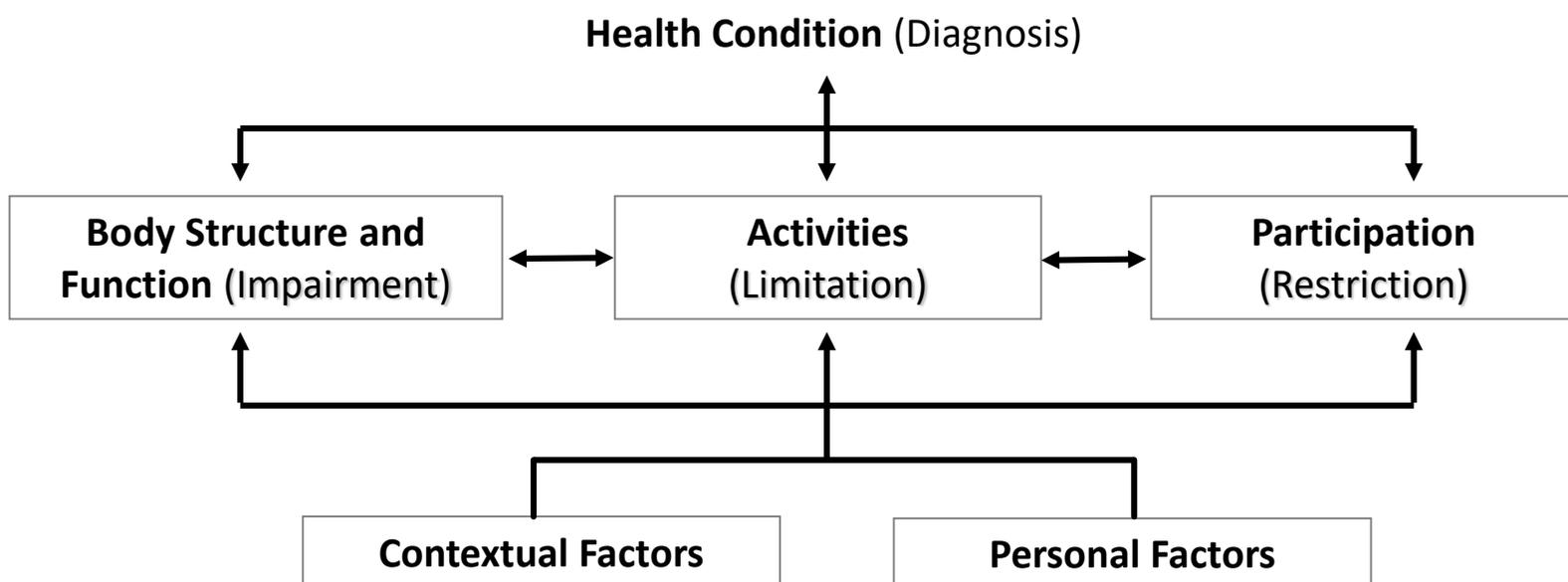


Figure 1. International Classification of Functioning, Disability and Health: components and the interactions between them.

1. Conceptual Basis for the Study

The ICF understands the level of functioning for a person with a disability as a dynamic interaction between health (in all of its dimensions: biological, psychological, and social) and contextual factors (i.e., environmental and personal) (Reina, 2014a). Therefore, the concept of **Disability** is defined as a “limitation and/or restriction” for proceeding with a “standard” life/activity based on an “impairment” in what is commonly understood as “health” (Rodríguez and Ferreira, 2010). In addition, the ICF facilitates standardized language and a theoretical framework for describing various states related to health, whose application today goes beyond the health field. The Convention on the Rights of Persons with Disabilities (UN, 2006) specifies in Article 1 that “persons with disabilities include those who have physical, mental, intellectual, or sensory long-term impairments that, upon interacting with various barriers, can prevent their full and effective participation in society on equal terms with others.”

The concept of **full participation** thus becomes a fundamental element with increasing importance at the social level since it represents the objective and vision of many stakeholders, such as: organizations that ensure the rights of people with disabilities, community organizations, the health and rehabilitation industry, and those responsible for determining social policies (Hammel et al., 2007). In any case, the phenomenon of full participation is complex and multifaceted, as shown in Figure 2, in which the areas valued by people with disabilities are presented. In this diagram it is observed that participation refers to the individual, social, and community levels, where participation for SWD would be understood as a means and an end at the same time.

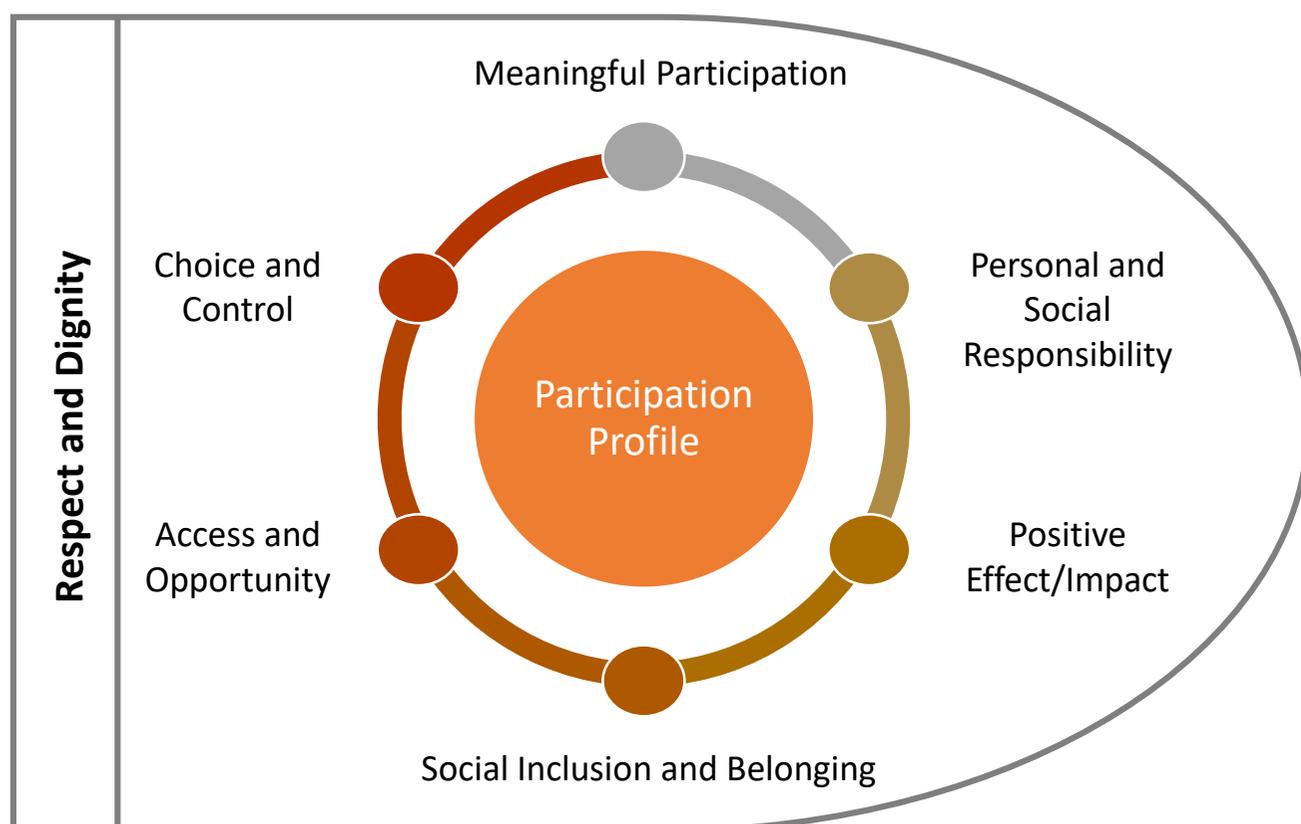
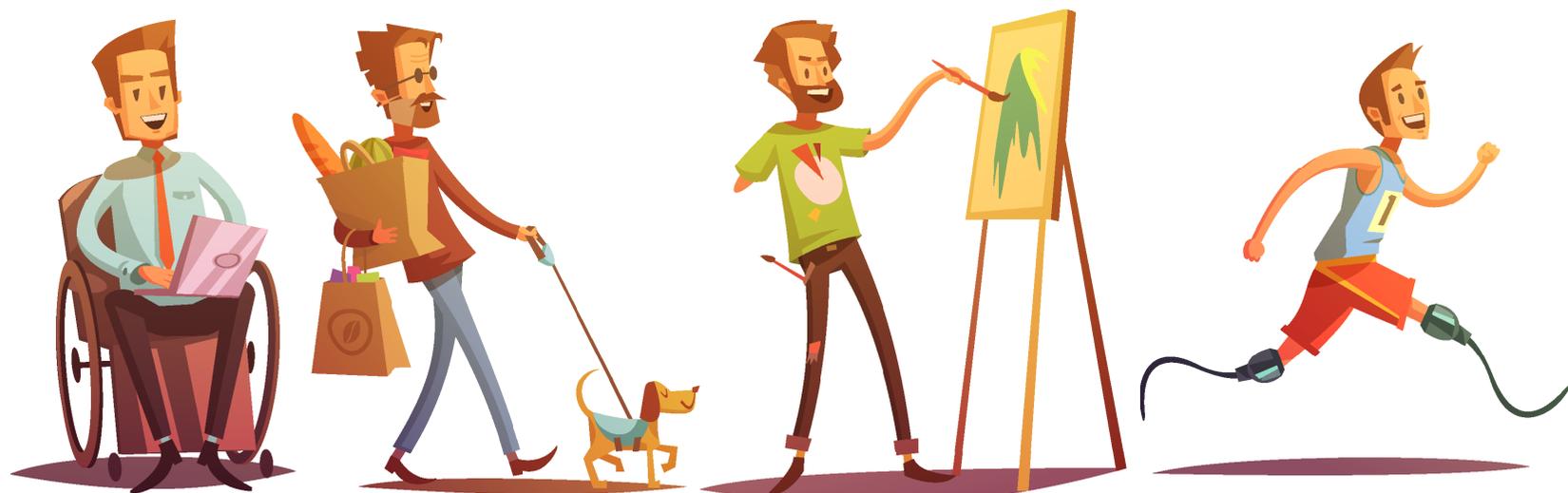


Figure 2. Important areas for full participation for people with disabilities (adapted from Hammel et al., 2007)

1. Conceptual Basis for the Study

The possibility of achieving this full participation will often depend on the contextual factors that are divided into two groups: a) **personal factors** (related to aspects of the person) and b) **environmental factors** (related to aspects of the person's surrounding environment). Both types of factors can act as a **barrier** if they restrict the person's full participation when performing the activity, or they can act as a **facilitator** if it helps or brings the person closer to achieving real and/or full participation in the activity. The same personal or environmental factor can act as a barrier and facilitator depending on the person and the context, as we will see in the analysis of the content from the face-to-face interviews with three stakeholders for the practice of physical and sports activity for university students with disabilities: Disability Support Services managers/specialists, Physical Activity and Sports Services managers/specialists, and the students themselves.

In promoting the practice of physical and sports activities, in our case for the university stage and context, it is also very important, on the one hand, to identify the contextual factors and, on the other hand, to find out if these are working as barriers or facilitators since they would influence the connection to physical-sports practice for SWD. Several studies focused on analyzing the potential barriers and facilitating factors faced by adults with disabilities suggest that restriction of participation is more related to contextual factors (i.e., personal and environmental factors) than to factors entirely related to the disability itself; that is, that the type of disability, whichever type it is, does not seem to limit participation in physical activity to a greater extent than environmental factors do (Griffin et al., 2016; Hammel et al., 2007). This means that full participation is never assured since it is a dynamic process that seeks to balance the "tug of war" between individual and social needs and values with that aim that in any activity the SWD participates will be enriching, satisfying, and why not, fun. Therefore, full participation, and the elements considered crucial to achieve it, will be modified depending on the context surrounding each person (Figure 3), as they will not be the same for two people with disabilities, especially when we are talking about different types and severity of disabilities, different universities, different organizational models and policies, among other factors.



1. Conceptual Basis for the Study

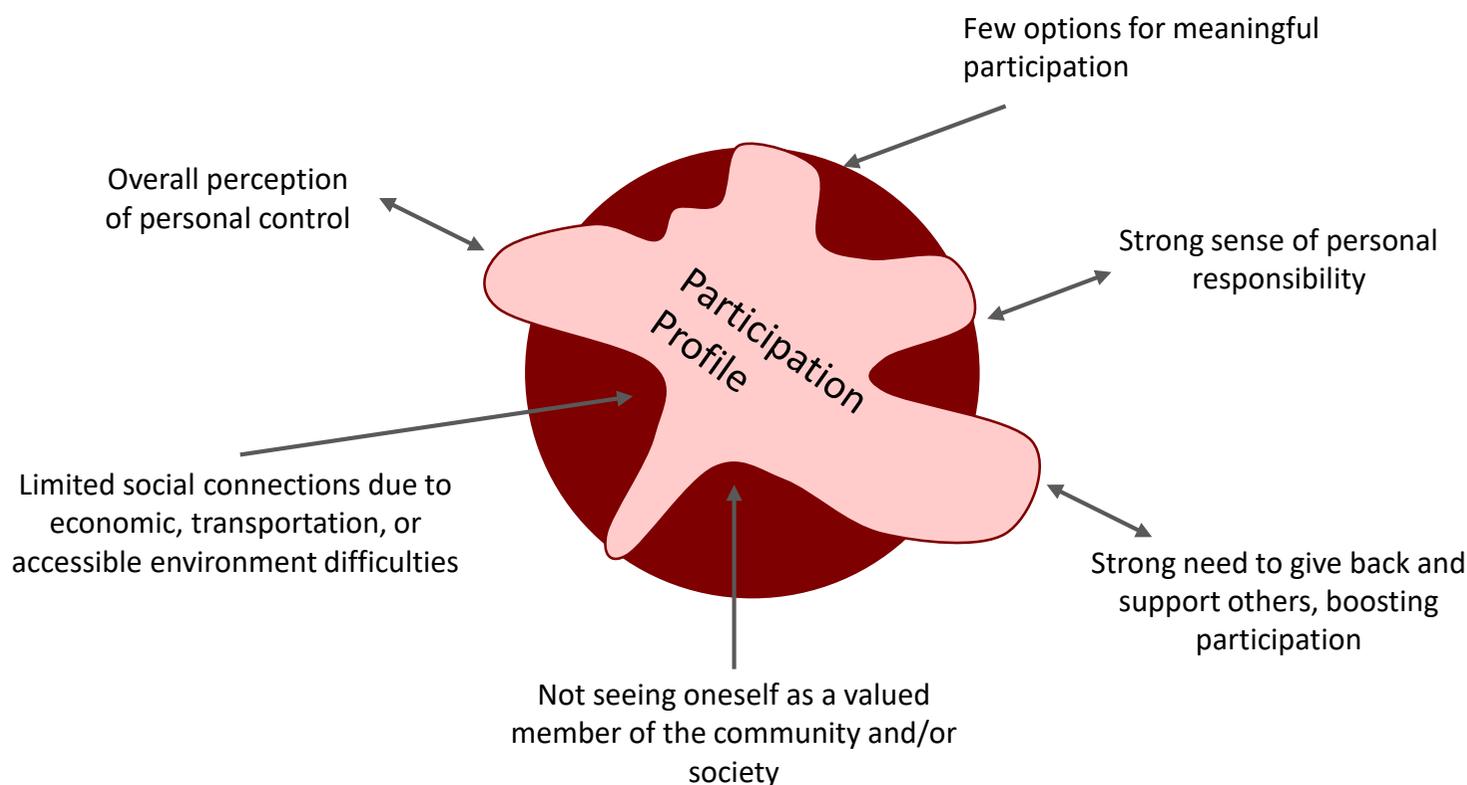


Figure 3. Specific example of how participation values may fluctuate depending on the context and individual perception of participation (adapted from Hammel et al., 2007).

1.3. BENEFITS OF PHYSICAL ACTIVITY AND SPORTS FOR PEOPLE WITH DISABILITIES

The practice of physical activity and sports is considered a healthy practice because it produces a large number of benefits that have already been demonstrated through scientific studies in various areas (e.g., sports, therapeutic, medical, etc.). People with disabilities are at a greater risk of suffering serious health problems associated with secondary comorbidities and more sedentary lifestyles than people without disabilities (Rimmer, Schiller and Chen, 2012; Keawutan et al., 2017). For this reason, the benefits that the practice of physical activity and sports can provide are much more evident for this population, for example, if we think about the great transfer that there could be if we improve physical abilities for carrying out daily life activities, such as: opening a door, opening a bottle, climbing stairs, carrying a shopping bag, moving from a wheelchair to the bed, etc., and therefore, for individual autonomy. We must not forget that the World Health Organization (WHO, 2001) affirms that sedentary lifestyles have great consequences for public health, and it has been shown that a minimum level of practice of weekly activity is a real, low-cost means to improve the physical, cognitive, social, and mental health of all people, regardless of their age, sex, or race (Colletto and Rodríguez, 2017; Van der Horst et al., 2007). However, as we will see throughout this study, developing healthy physical activity or sports habits is not always an easy task for people with disabilities due to some personal barriers such as pain, lack of energy, low self-esteem, or perceptions that exercise is too difficult (Phillips, Flemming and Tsintzas, 2009); or environmental barriers such as: lack of transportation, the offering of

1. Conceptual Basis for the Study

specific and inclusive sports programs, the lack of adapted materials, unqualified personnel, program and material costs, among others (Jaarsma et al., 2014; Bragaru et al., 2013; Williams, Smith, and Papatomas, 2014; Taliaferro et al., 2017; Soundy et al., 2014), which make physical activity a daunting task for many people with disabilities (Rimmer and Marques, 2012).

1.4. DISABILITY AND EMPLOYABILITY

A student would be employable if he/she has the knowledge and competencies that are required for a specific job. However, today, the fact of having certain training does not guarantee access to the labor market or certain jobs. Traditionally, it has been thought that specific skills are the main and necessary skills in the training process (i.e., expert knowledge in the subject), but the reality is that the labor market is increasingly requesting additional skills outside of those specific to an industry or job (Villarroya et al., 2017). Thus, for employers, interpersonal leadership skills, work ethics, communication (e.g., teamwork), and autonomy (e.g., proactiveness, time management) are increasingly valuable. The combination of both aspects (knowledge + competencies) is the basis of employability for university students.

Among the benefits that the practice of physical activity and sports produces, especially for people with disabilities, would be those related to the development of professional skills and employability. Some studies conducted at the school age have shown that physical activity and sports have an impact on academic performance, so that more active students could demonstrate better academic achievement than those who do not practice sports (Rees and Sabia, 2010; Khan et al., 2012). Among the most notable improvements are the increase in social relationships, time management skills, proactivity, the ability to work as a team, and therefore, communication with others, among others (Montecalbo-Ignacio, Ignacio, and Buot, 2017). Unfortunately, little is known about the impact that the practice of physical activity and sports could have on university students with regard to employability, which is one of the pillars of this study.

The practice of sports as a “university extension” activity emerges as a means to develop these general skills in university students, as has been demonstrated in a recent study where employability was improved through participation and volunteering in sports, proving to be a good investment in terms of skill development and future earnings (Griffiths et al., 2017). For the labor market that we currently have in Spain, sports participation as an extra-curricular activity can be a good indicator of candidates with desirable characteristics for employment. For this reason, for universities, satisfying the sports demand of their students would be an important aspect to consider: an aspect that takes on more importance when we refer to SWD because of their lower levels of job placement.

Chapter 2

Operational Objectives and Work Methodology



Chapter 2

Operational Objectives and Work Methodology



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2.1. Justification and Operational Objectives

This study is the result of the contract signed between the **ONCE Foundation** for Cooperation and Social Inclusion of Persons with Disabilities (hereinafter the ONCE Foundation) and the **Miguel Hernández University** of Elche (hereinafter UMH). Within the framework of its foundational aims, the ONCE Foundation considers the development of actions aimed to promote training and employment as an adequate instrument for the social and labor inclusion of people with disabilities, as well as the preparation of studies such as this one. Thus, this action is part of the Operational Program for Social Inclusion and Social Economy co-funded by the European Social Fund (ESF), for which the ONCE Foundation is an Intermediary/Beneficiary Body for the 2014-2020 programming period.

The ONCE Foundation, in order to understand the degree of participation for people with disabilities in the context of university sports and to promote their **socio-labor integration through the promotion and practice of university sports**, granted UMH, after the proper public competition, the responsibility for creating a study that identifies the current state of affairs for university students with disabilities and the practice of sports, as well as for understanding the role of sports as a mechanism for labor integration for people with disabilities.

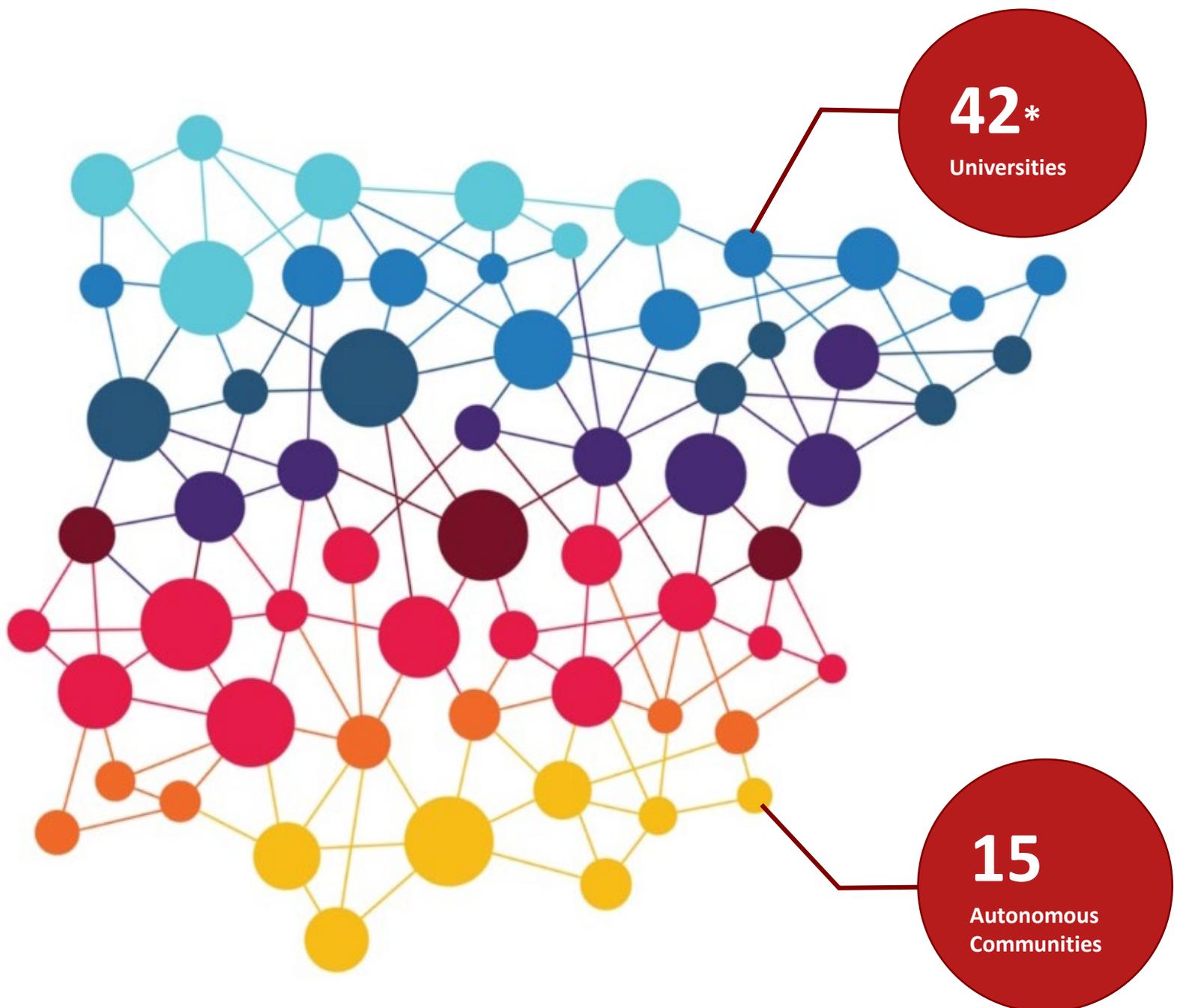
Based on this explanatory statement, in an operative way, this study aims to:

1. Identify the **legislative framework and actions** carried out in the field of physical activity and sports for university students with disabilities.
2. Analyze the **sports practice** for students with disabilities in the university environment and its impact as a mechanism of socio-labor insertion.
3. Identify the **barriers**, personal and contextual, that most limit participation in physical and sports activities at the university.
4. Identify the **facilitating factors**, personal and contextual, the contribute to promoting the practice of physical and sport activity at the university.
5. Identify **best practices** for physical and inclusive sports activity which propose inclusive strategies for the practice of physical and sport activity in the areas of leisure, health, and/or competition. In this regard, strategies to promote inclusive sports can be identified at different levels:
 - 5.1. **Health**: Encourage access to physical activity programs offered by Sports Services, mitigating the negative effects of sedentary lifestyle that characterizes the group. List a series of guidelines for the University Sports Services specialists to promote the practice of inclusive physical activity.
 - 5.2. **Leisure**: Propose a series of practical possibilities to promote inclusive sports practice for the entire university community (e.g., open houses, inclusive campuses, awareness days).

2.1. Justification and Operational Objectives

5.3. **Competitive:** Propose inclusive strategies for practice in Competitive University Sports (CADU/CEU). Offer inclusive activities in which students without disabilities can practice physical and sports activities, thus contributing to the dissemination of some sports for people with disabilities in the university community and its surroundings. Propose a series of measures to balance high-level competitive athletes and their university studies.

In the next section we will explain the methodology used in the study as well as the description of the different groups of participants.



Summary of Universities and Autonomous Communities participating in this Study.

- Two Universities are represented by Students (top-level competitive athletes with disabilities), recipients of the Opportunity to Talent Scholarships.

2.2. Study Methodology

2.2.1. PARTICIPANTS

As indicated on the previous page, a total of **40 Spanish universities** from **15 autonomous communities** agreed to participate in the study, and to that number we must add 2 more for the participation of students with disabilities who were high-level athletes and scholarship recipients for the *Opportunity to Talent* program from the Once Foundation. Those in charge (or those who were delegated authority) from Support Services for Students with Disabilities and from Sports Services were interviewed in person. With respect to the students body, each university was asked to identify two students with disabilities, one of whom regularly performed physical activity and the other who did not. These students were interviewed in person, although a larger sample of students with disabilities was accessed through the online questionnaire technique.

Below, we present the most important demographic characteristics of the different population groups, including the work team and collaborators from the pilot study prior to the data collection.



Support Services for Students with Disabilities for Spanish Universities.

All of the people who were interviewed from the **40 Support Services for Students with Disabilities** had a higher education degree. 66.7% of the professionals interviewed were women, while the remaining 33.3% were men. The range of workers for the services ranged from a minimum of one to a maximum of ten, with the following distribution: one technician (30%), two (30%), three (20%), four (10%), five (2.5%), and ten (7.5%). Therefore, the average number of workers for the Services that have taken part in this study is 2.8.

If we analyze the sub-unit or individual unit on which their activity depends, in Figure 4 it is shown that 56% of the participating Services depend on the Vice-Rectorate with responsibility for Student issues. Secondly, we find the link to entities related to University Extension (18%) or Employment and Enterprise (10%). Less commonly, we find two universities where the service is supervised by a Representative for matters of inclusion (4%), from the Vice-Rectorate with competencies in Sports or Studies. Finally, one of two universities (2%) integrate the Service with the entity with scope in Cooperation matters or with the General Secretariat of the University.

2.2. Study Methodology

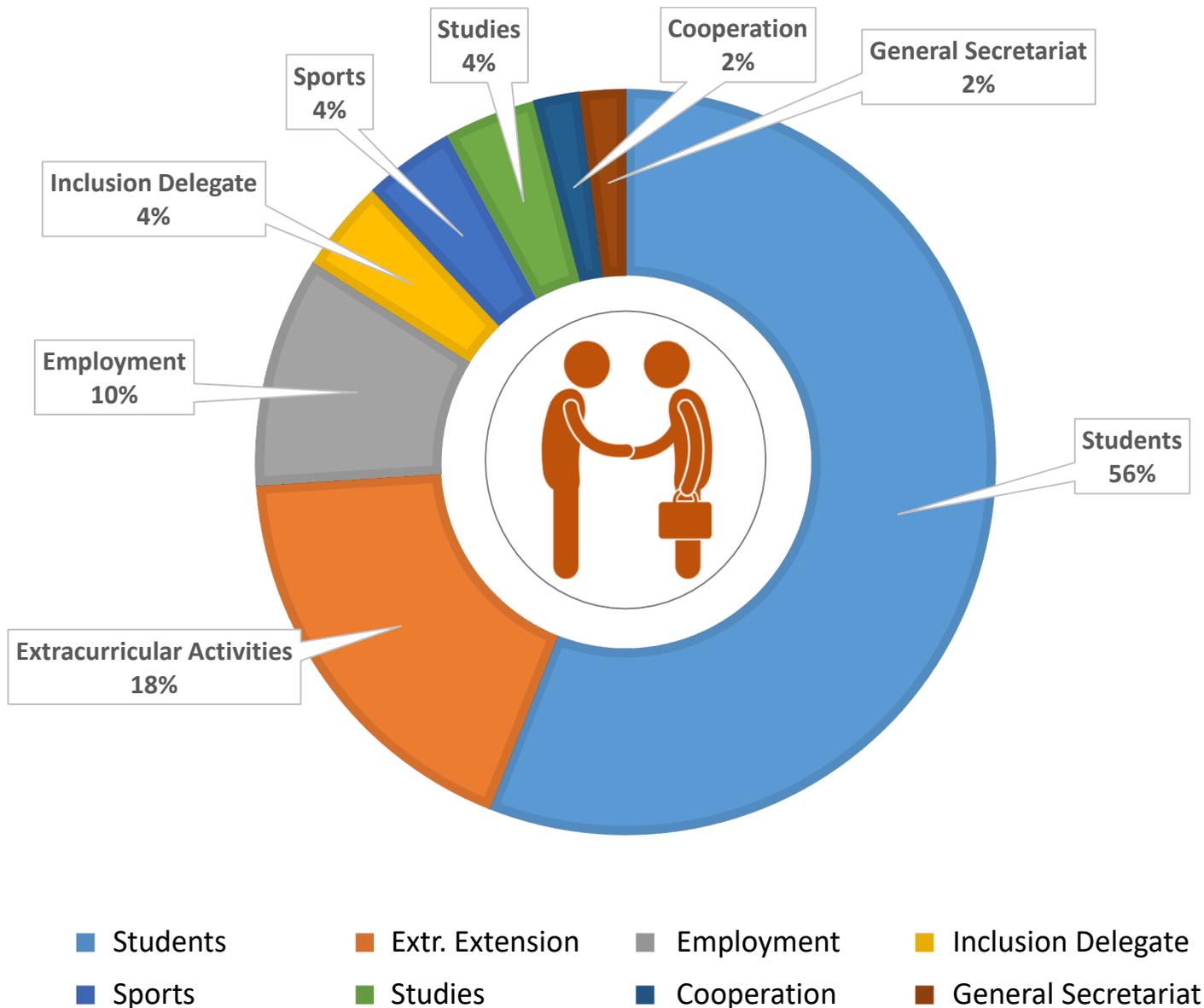


Figure 4. Sub-units or individual entities to which Support Services for Students with Disabilities for the present study are assigned.



Physical Activity and Sports Services for Spanish Universities.

The participation for those in charge of Physical Activity and Sports Services for the Universities could not be completed for all 40 of the universities due to the decline of invitation on their part, leaving a total of **35 participating Services**. Contrary to Support Services for Students with Disabilities, these services have a higher frequency of men (79.4%) than women (20.6%).

Universities Collaborating in the Study



Alacant



Alcalá



Autonomous University of Madrid



Barcelona



Cádiz



Carlos III



Castilla la Mancha



Complutense of Madrid



Córdoba



Da Coruña



Deusto



Extremadura



Girona



Granada



Huelva



University of the Balearic Islands



Jaume I



La Laguna



León



Lleida



Miguel Hernández



Murcia



Nacional a Distancia



Open University of Catalonia



Oviedo



Pablo de Olavide



País Vasco / Euskal Herriko



Polytechnic of Cartagena



Polytechnic of Catalonia



Technical University of Madrid



Technical University of Valencia



Comillas Pontifical



Public University of Navarre



Rovira i Virgili



Salamanca



San Jorge de Zaragoza



Santiago de Compostela



Valencia



Valladolid



Vic



Vigo



Zaragoza

2.2. Study Methodology

The majority of specialists or those responsible interviewed had university studies, whether undergraduate (91.2%) or Associate's degree (5.9%). 35.3% of those interviewed said they had some previous experience or knowledge about attention to diversity in physical activity and/or sports.

Figure 5 again shows great diversity of the structures or entities where Activity/Physical Education Services are integrated. Interestingly, only 11% of the participating Services are integrated into a higher entity with direct scope in Sports matters, with Culture and University Extension (25%) and Students (23%) being more frequent.

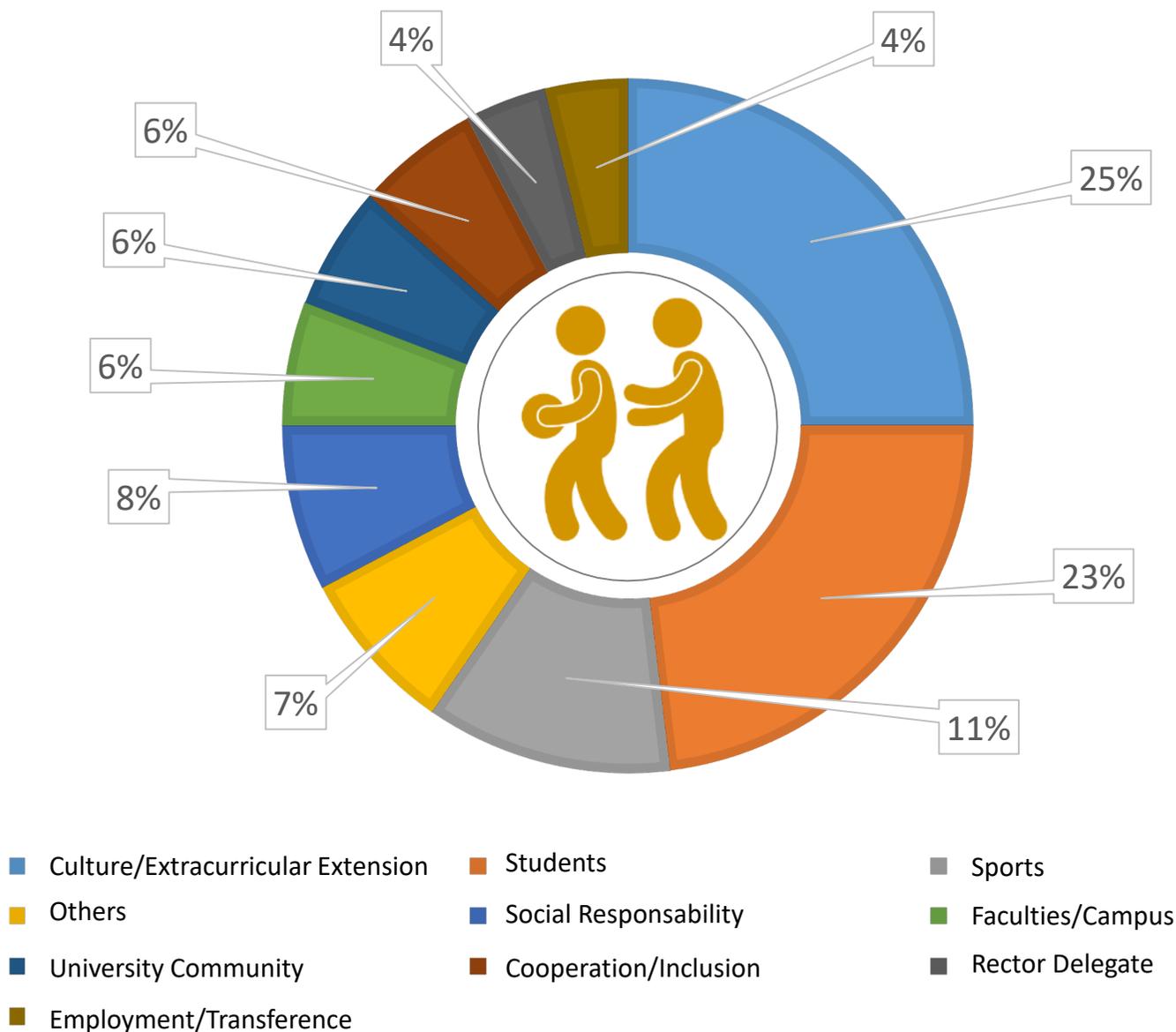


Figure 5. Sub-structures or individual entities to which the Activity/Physical Education and Sports Services for this study are assigned.

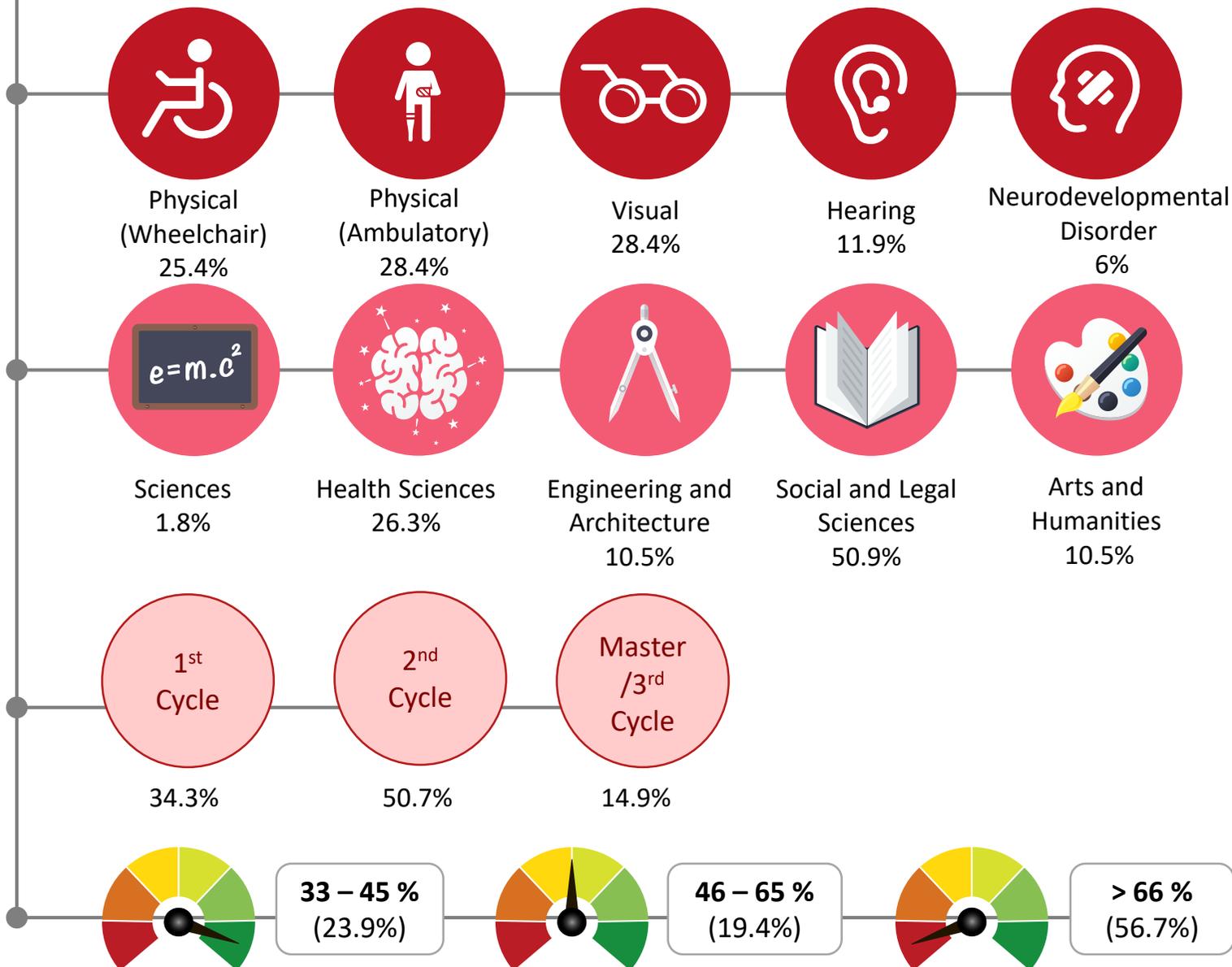
2.2. Study Methodology

The number of workers and specialists for these Services varies substantially, from a minimum of 1 to a maximum of 63 workers (e.g., includes specialists of directed activities), with an average of 13.3 employees. Finally, it should be noted that 40% of the interviewed Services claim to have some adapted or specific material for sports practice for people with disabilities.



University Students with Disabilities (Face-to-Face Interview)

A total of **67 face-to-face interviews** were conducted with students with disabilities from the universities participating in the study, with 91% from to public universities and 9% from private universities. The various demographic characteristics of the sample are presented below, according to the type of disability, area of study, educational stage, and degree (%) of disability.



2.2. Study Methodology



University Students with Disabilities (Online Interview)

In addition to the face-to-face interviews conducted with Support Services for Students with Disabilities, Sports Services, and Services for Students with Disabilities, a total of **350 questionnaires** were collected with an **online** system. The percentages, by type of disability, are similar to the group of face-to-face interviews in terms of physical disability (57%), hearing (8%), and neurodevelopmental disorders, which includes autism spectrum disorders (ASD), attention-deficit/hyperactivity disorder (ADHD), and intellectual disability (2%). A lower incidence of people with visual impairments was reported (11%), and specific percentages are presented for people with psychosocial or mental health conditions (19%) and for the organic/physiological type (3%).

Considering the severity of the disability, we observe that the percentage of respondents decreases as the degree of disability increases.

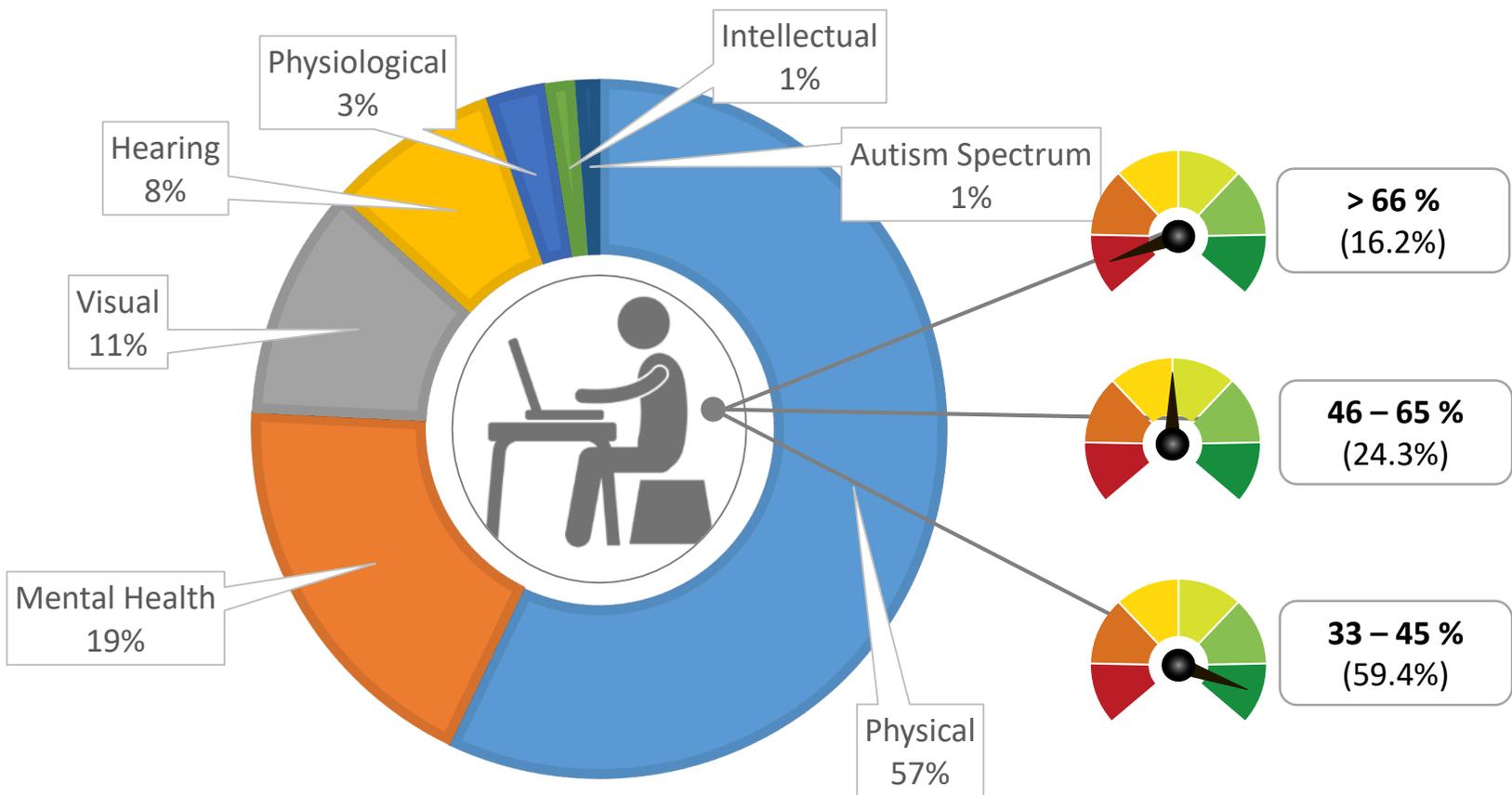
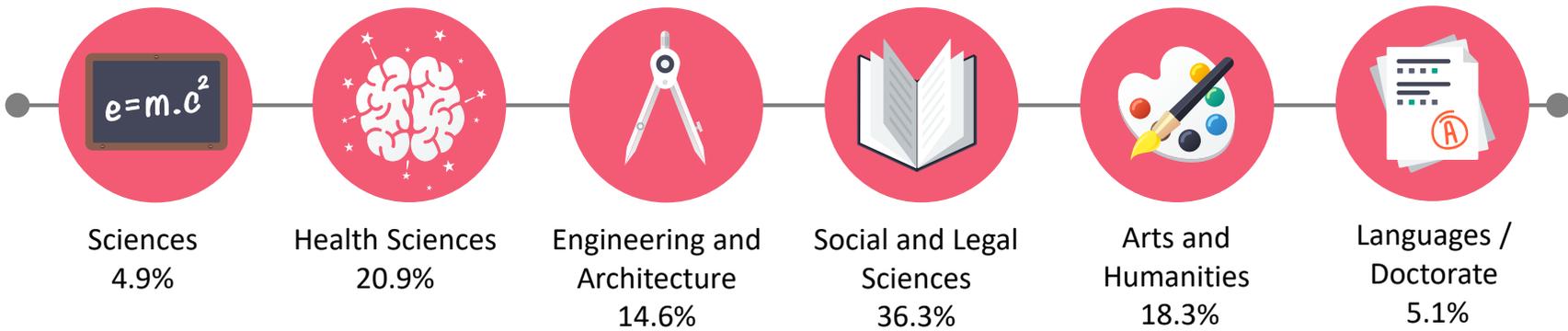


Figure 6. Percentage frequencies by type of disability for the students who completed the online interview.

2.2. Study Methodology

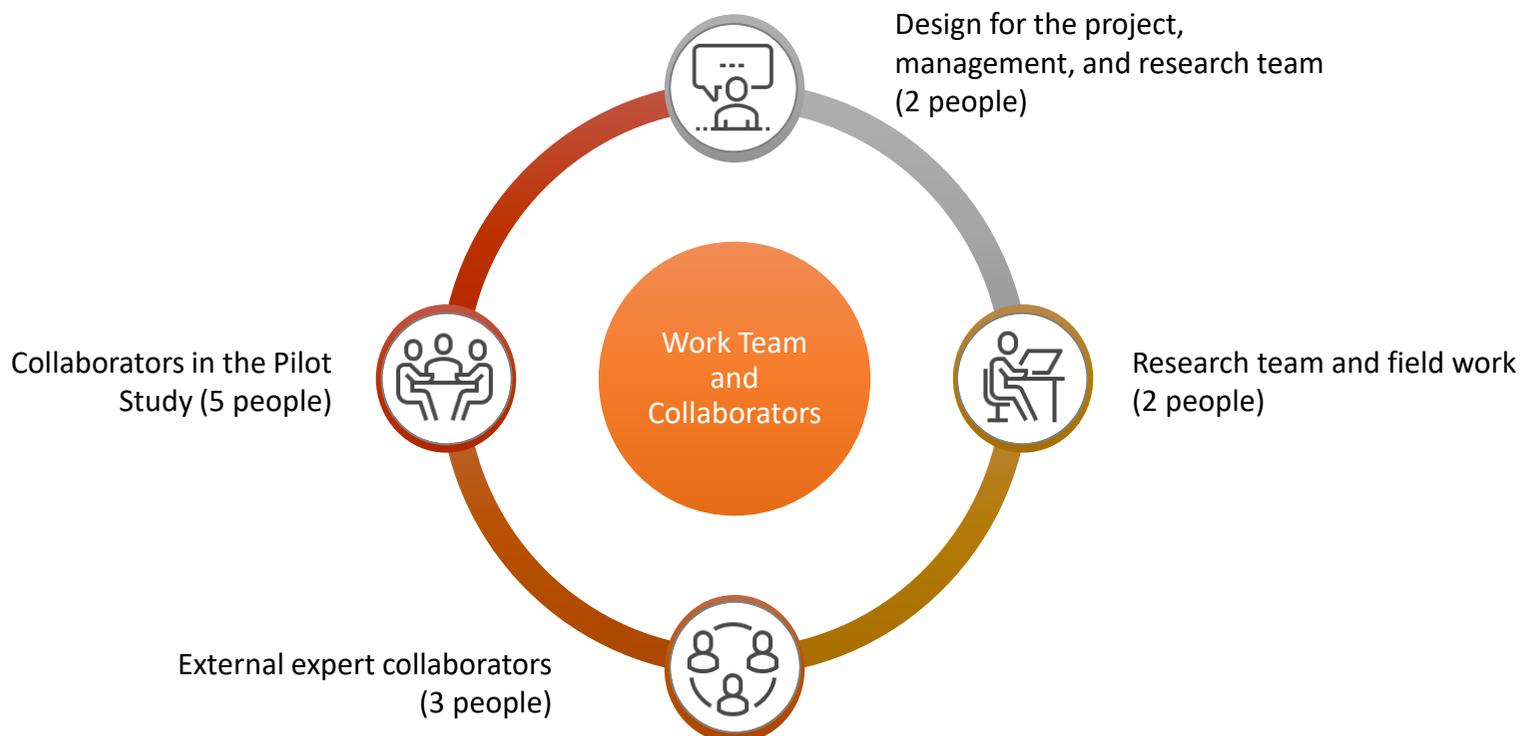
Regarding the area of study for the respondents, we observe that the percentage of Science students increased slightly (4.9%), Engineering and Architecture (14.6%), and Arts and Humanities (18.3%), while it decreased for students of Health Sciences (20.9%) and Social and Legal Sciences (36.5%), which accounted for half of those interviewed in person. A category for Languages and Doctorate Studies (with the scope of study not specified) is included, assuming the remaining 5.1%.



Finally, regarding the level of study completed, 50.1% were in the first cycle, 37.3% in the second cycle, and 12.61% were Master's or Doctorate students.

2.2.2. WORK TEAM AND COLLABORATORS

The work team for this study consists of the following people and profiles:



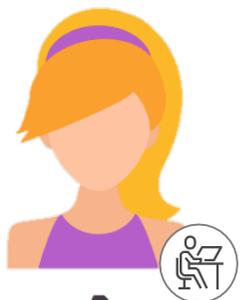
2.2. Study Methodology



- Male, 40 years old - Project Director
- PhD in Physical Activity and Sports Sciences
- European Master in Adapted Physical Activity
- Full University Professor: Teaching in Physical Activity and Adapted Sports in the Degree for Physical Activity and Sports Sciences and in Occupational Therapy
- Director of the Area of Support for Students with Disabilities at UMH since 2013



- Female, 33 years old - Project Co-Director
- PhD in Physical Activity and Sports Science
- European Master's in Adapted Physical Activity
- Associate University Professor: Teaching in Physical Activity and Adapted Sports in the Degree for Physical Activity and Sports Sciences and in Occupational Therapy
- Head of the Applied Physical Activity Program in the TEMPE-APSA Disability and Employability University Chair



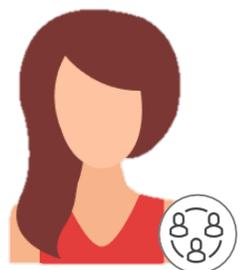
- Female, 29 years old
- PhD student in Health Psychology
- Degree in Psychology
- Master in Human Resources, Labor, and Organizations



- Male, 25 years old
- Graduated in Psychology
- Technician hired for the project to collect field data (face-to-face interviews at collaborating universities).



- Male, 52 years old
- Doctorate in Business Management and Taxation
- Degree in Economics and Business Administration
- Director of Employment and Internship Service at a Valencian Public University since 1997



- Female, 35 years old
- PhD in Physical Activity and Sports Sciences
- Specialist in Inclusive Sports

2.2. Study Methodology



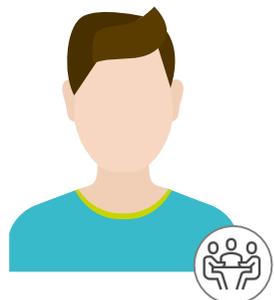
- Male, 38 years old
- PhD in Physical Activity and Sports Sciences
- Specialist in Qualitative Data Analysis and NVivo Software



- Female, 40 years old
- Graduate in Social Work
- Worker for the Support Service for Students with Disabilities at a Valencian Public University



- Male, 50 years old
- Bachelor of Science in Physical Activity and Sports
- Specialist and Head of Adapted Sports at the Physical Education and Sports Service at a Valencian Public University



- Male, 29 years old
- Graduate in Labor Relations and Human Resources
- Master's in Human Resources, Labor, and Organizations
- Wheelchair Slalom Athlete (Class WS2)



- Female, 42 years old
- Graduated in Psychology
- Master's in Physical Therapy for Children and Adolescents
- Technical Collaborator for the Area of Support for Students with Disabilities at UMH



- Female, 28 years old
- Graduate in Occupational Therapy and Master in Occupational Therapy in Neurology
- Technical Collaborator for the Area of Support for Students with Disabilities at UMH
- Sports specialist for people with high support needs

2.2. Study Methodology

2.2.3. ETHICAL GUARANTEES AND TIMELINE

The study was completed through a contract signed between the ONCE Foundation and the Miguel Hernández University of Elche (Agreement No. 6/17), taking place in the period between December 22, 2016 and March 30, 2018 (15 months).

The study received approval from the UMH Project Evaluation Body (Ref.: DPS.RRV.01.16) on research protocols with human beings and a favorable report on the prevention of occupational risks.

Listed below is the timeline for the study and the main actions carried out during each of the time periods:

- Planning and relevance of the study
- Open call
- ONCE Foundation-UMH Agreement

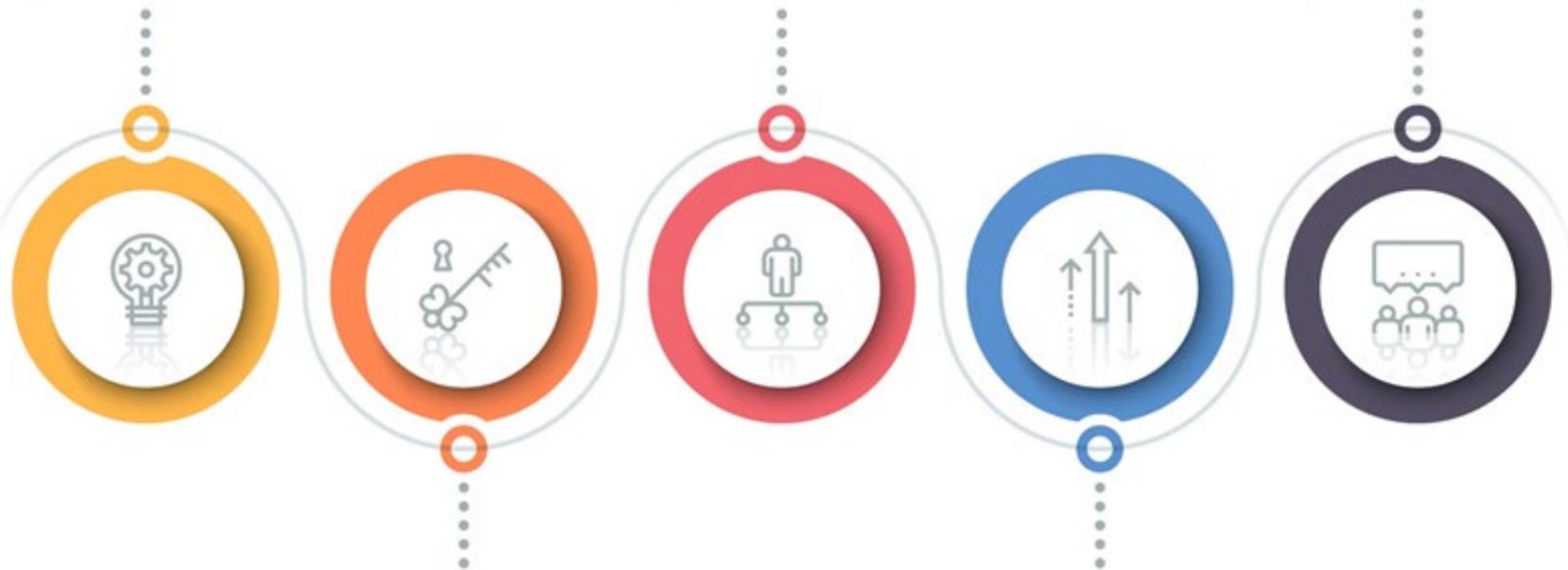
June-2016
Dec-2016

- Confirmation of contacts
- Collection of face-to-face data (services and students) and online data (students)

Apr-2017
Oct-2017

- Interpretation of results
- Creation of technical report and executive overview

Feb-2018
Mar-2018



Jan-2017
Mar-2017

- Technical Recruiting
- Tool Development
- Collaborator Interviews
- Pilot Study
- Initiate contact with Universities

Sept-2017
Jan-2018

- Transcription of interviews for qualitative analysis
- Definition of categories and nodes for qualitative analysis
- Quantitative data processing

2.2. Study Methodology

2.2.4. DATA COLLECTION INSTRUMENTS

Four ad hoc instruments were created for the data collection, completed by the 4 members of the collaboration work group with two of the external expert Collaborators. Once the four data collection instruments were made, they were tested with 5 participants in the Pilot Study who gave them their approval and only formal or stylistic adjustments were made regarding the formulation of some of the questions.

The main characteristics of each of the instruments are described below, with the possibility of direct access to them through the attached QR Code:



- Face-to-face interview by a member of the research team.
- 19 questions.
- Likert scale to assess barriers to the practice of physical activity and sports by university students with disabilities.
- Rating scale of the development of professional and employability competencies to develop with participation in physical and sports activities.



- Face-to-face interview by a member of the research team.
- Demographic data on the type and degree of disability as well as sports practice.
- 24 questions.
- Likert scale to assess barriers to the practice of physical activity and sports by university students with disabilities.



- Online questionnaire distributed by Support Services for Students with Disabilities from Collaborating Universities.
- Explanatory video from the study director and collaborating athlete with a disability.
- Demographic data on the type and degree of disability as well as sports practice.
- International Physical Activity Questionnaire (IPAQ)



Consent Form for Face-to-Face Interviews



2.2. Study Methodology

Below are the material and computer resources for data instrument design, collection, and analysis:



- Olympus DM901 Recorder
- Data collection for face-to-face interviews



- MS Excel, 2013 version
- Dump of Likert scales
- Graphic Representations



- Ad hoc questionnaire with Google Forms
- Online student questionnaires



- IBM SPSS, version 24.0
- Analysis of correlations and comparison between interest groups



- Specific interviews with recordings of the conversation
- Work group meetings



- NVivo, version 10.0.638.0SP6
- Analysis and identification of content nodes

2.2.5. RIGOR CRITERIA

According to Lincoln and Guba (1985), the criteria most often used to evaluate **the quality of qualitative research** are credibility, transferability, confirmability, and dependability. Given the qualitative nature of this study, delving into the factors that underlie the practice of physical and sports activity for university students with disabilities, we will detail below how these criteria have been applied:

1. **Credibility.** This is understood as the trust about the truthfulness of the results (Shenton, 2004), determined by the use of correct and suitable data collection methods as well as application in an appropriate geographic and cultural context. To achieve this, the following strategies were used:
 - Design of instruments and discussion about them by people with different backgrounds and roles in the management of physical activity, disability, or employment for university students with disabilities.
 - Symmetry of the instrument questions and content to obtain information from different representatives, that is, managers and students.
 - Discussion sessions on the development of the study and participation of expert collaborators to avoid drift or bias.
 - Conducting a pilot study with participants representing the various interest groups, with different backgrounds, roles, and sexes.
 - Invitation to all Spanish universities, public and private, with 15 of the 17 Autonomous Communities represented, who have been granted responsibility for University matters.

2.2. Study Methodology

- Standardization of the interview protocol, maintaining consistent interviewers and persuasion methods when dealing with semi-structured interviews.
- 2. Confirmability.** This refers to the fact that the results are configured according to the responses from the interest groups and that there is no bias on the part of the researchers. The two strategies used for this were:
 - Verbatim transcription for the subsequent content analysis with the NVivo software.
 - Creation of the informative nodes and analysis blocks with an external expert collaborator who did not participate in the design of the instruments or in the data collection.
 - 3. Transferability.** This means that the results can be transferable to different contexts. Although the final sample of Universities that accepted to participate in the study was 40, these include both public and private, face-to-face and online, in addition to representing 15 of the 17 Autonomous Communities. This number of universities is far from the 76 participants for the “Study on Available Resources to Encourage the Inclusion of Spanish University Students with Disabilities” (see <https://guiauniversitaria.fundaciononce.es>), approaches the 55 participants in the “Third Study on the Degree of Inclusion for the Spanish University System Regarding the Reality of Disability” (Fundación Universia, 2016), and is the same as the number from the study on “Adapted Sports for Spanish Universities” (Campos et al., 2016). Another indicator to take into account is the percentage of students by area of study, which is within the ranges reported by the Third University and Disability Study from the Universia Foundation and CERMI (2016). In addition, it should be noted that there is evidence of students from a broad spectrum of type and severity of disability, as well as including Support Services for Students with Disabilities and Sports Services that depend on different organizational or administrative units.
 - 4. Dependability.** This refers to the fact that the information must be specified so that the study can be analyzed or replicated by third parties; although this is perhaps the least important criterion of rigor due to the very nature of qualitative methodology and the uniqueness of the opinions expressed by the interviewees.
 - 5. Validity.** This fifth criterion of rigor, noted by Norland (1990), was attempted to be applied using the following strategies:
 - Balancing the content and format of the questions included in the three face-to-face interviews.
 - Involving external expert collaborators in the design of instruments to measure what was really intended to be measured.
 - Conducting a pilot study.



Chapter 3

Legislative Framework and Indications for Disabilities, Universities, and Sports



Chapter 3

Legislative Framework and Preliminary Indications for Disabilities, Universities, and Sports



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3.1. People with Disabilities at Universities

3.1. PEOPLE WITH DISABILITIES AT UNIVERSITIES

3.1.1. GENERAL LEGISLATIVE PROVISIONS

Organic Law 4/2007, from April 12, which modifies Organic Law 6/2001, from December 21, for **Universities** (LOMLOU), stipulates the creation of “specific programs on gender equality, aid to the victims of terrorism, and the promotion of active policies to guarantee equal opportunities for people with disabilities.”

The twenty-fourth Additional Provision of the LOMLOU deals with *the inclusion of people with disabilities in universities*, with special emphasis on the following pillars:

- Equal opportunities.
- Eradication of any form of discrimination, both for access, entry, continuation, or exercise of academic titles acquired.
- Establishment of affirmative action measures.
- **Full and effective participation** in the university environment.
- Provision of means, supports, and resources for real and effective equal opportunities.
- Accessibility of services, facilities, and agencies, both physical and virtual.
- Design of curricula based on the respect and promotion of Human Rights and the principles of universal accessibility and inclusive design.
- Exemption from fees and public rates.

On the other hand, Royal Decree 1791/2010, from December 30, which approves the **Statute for University Students**, including the following specific provisions in relation to Students with Disabilities:

- Article 4 on *non-discrimination* with the “requirement of acceptance of democratic norms and respect for citizens, constitutional basis of Spanish society.”
- Article 12 on *effectiveness of rights*, where universities “will establish the necessary resources and adaptations so that students with disabilities can engage in them on equal terms with the rest of the students, without this implying a decrease in the academic level required.”
- Article 13 on the *responsibilities of university students*, where non-discrimination of any member of the university community is presented as a student responsibility, including those with disabilities.
- Article 15 on *access and admission of students with disabilities* in order to “guarantee equal opportunities and full inclusion at the university,” as well as to guarantee accessibility to all of its spaces and buildings, including virtual ones.
- Article on *national and international mobility of students with disabilities*, with measures such as the establishment of quotas, funding guarantees, and the promotion of information and coopera-

“Universities shall guarantee **equal opportunities** for students and other members of the university community with disabilities, prohibiting any form of discrimination and establishing affirmative action measures aimed at ensuring their **full and effective participation** in the university environment...

...universities **will promote actions to encourage** all members of the university community who have special or specific needs associated with disability to have the means, support, and resources to ensure real and effective quality of opportunities in relation to the other components of the university community.”



ORGANIC LAW 4/2007, from April 12, which modifies Organic Law 6/2011, from December 21, for Universities. Twenty-fourth additional provision. *On the inclusion of people with disabilities in universities.*



3.1. People with Disabilities at Universities

tion between support units for these students (i.e. support for disability/diversity and mobility).

- Article 22 on *tutoring for students with disabilities*, adapted to the needs of students with disabilities (i.e., accessible places, individual or permanent tutoring programs).
- Article 23 on *external academic practices*, where universities must promote the establishment of agreements with companies and institutions, encouraging them to be accessible for internships for students with disabilities.
- Article 26 is an article specific to the group that concerns us, called *students with disabilities*, ruling that “evaluation tests must be adapted to the needs of students with disabilities, with centers and departments proceeding with necessary methodological, temporal, and spatial adaptations.”
- Article 29 on *communication about grades*, which must be accessible for students with disabilities.
- Article 30 on *review before a professor or before a court*, where it is stipulated that reviews must “be adapted to the specific needs of students with disabilities, with departments proceeding, under the coordination and supervision of the relevant unit at each university, with the necessary methodological adaptations and, where appropriate, the establishment of reviews specific to their needs.”
- Articles 35 and 36 on *selection of representatives and their rights*, which promotes the participation of people with disabilities in this student representation, and the guarantee of access to spaces and services that guarantee such participation.
- Article 62 on ***physical and sports activity for students***, stipulating in point 5 that “universities will promote physical activity and sports programs for students with disabilities, facilitating means and adapting facilities that correspond to each case.”
- Article 64 on *social participation and cooperation activities for student development*, where universities are responsible for encouraging the participation of students with disabilities for development cooperation projects and social participation.
- Article 65 on ***student support services***, where the following provisions stand out:
 5. “Universities will strengthen and propose the creation and maintenance of adapted transportation services for students with motor disabilities and/or mobility difficulties.”
 6. “From each university, the **creation of Support Services for the university community with disabilities** will be promoted through the establishment of a structure that makes the provision of services required by this group feasible.”
 7. “Spanish universities must ensure the accessibility of tools and formats so that students with disabilities experience the same conditions and opportunities when it comes to training and accessing information.”
 8. “Webpages and electronic resources for lessons and/or distance learning universities, in compliance with the Law on Information Society Services and Electronic Commerce will be accessible to people with disabilities and will allow for the information that they contain to be downloaded.”

3.1. People with Disabilities at Universities

- Art. 66 on *student housing services*, where schools and university residences must be accessible to people with disabilities.

For the subject of this study, Art. 23 only refers to accessibility in companies where external academic internships take place, while Art. 62 makes explicit mention of participation in physical and sports activities by university students with disabilities.

3.1.2. CRUE AND ONCE FOUNDATION ACTIONS

At this point, we want to present the current structure of **CRUE Student Affairs**, responsible for promoting the coordination of activities and proposals relating to the area of students for universities which make up the CRUE Spanish Universities. It has as its purpose to collect and disseminate information about the issues that affect SWD and to promote joint actions for issues for their academic system, social and welfare services, professional information and guidance, scholarships and study grants, employability, student partnerships and representation, cultural and sports activities, as well as the formulation of proposals and general recommendations before entities that have power in their sphere of influence.

If we analyze the current structure of its work groups, we find the following six:

1. Scholarships and Mobility
2. **Sports**
3. **Diversity and Disability**
4. Employment
5. Student Orientation
6. Student Counseling and Engagement.

Based on the premise that CRUE Spanish Universities is the main intermediary for universities with the central government, playing a key role in the regulatory developments that affect higher education in our country, the relationship between these dimensions (groups) of work becomes vital if we want to have a holistic and comprehensive response to the university stage, especially when referring to students with disabilities. Figure 7 shows some of the main examples of actions taken in these matters of student affairs relating to people with disabilities.

Regarding the first of the areas, **Scholarships and Mobility**, Foundation ONCE, through its Commissioner for University, Youth, and Special Plans, promotes its *Opportunity to Talent Scholarship* Program which aims to promote excellent training, transnational mobility, and the specialization of students with disabilities in areas of special employability, as well as **sports training**, with this being **one of the few references in terms of support for sports and disability** that we find today. In addition, the program aims to leverage all of the potential and promote the academic and research careers of university students with disabilities, thus promoting their inclusion in highly skilled jobs.

3.1. People with Disabilities at Universities

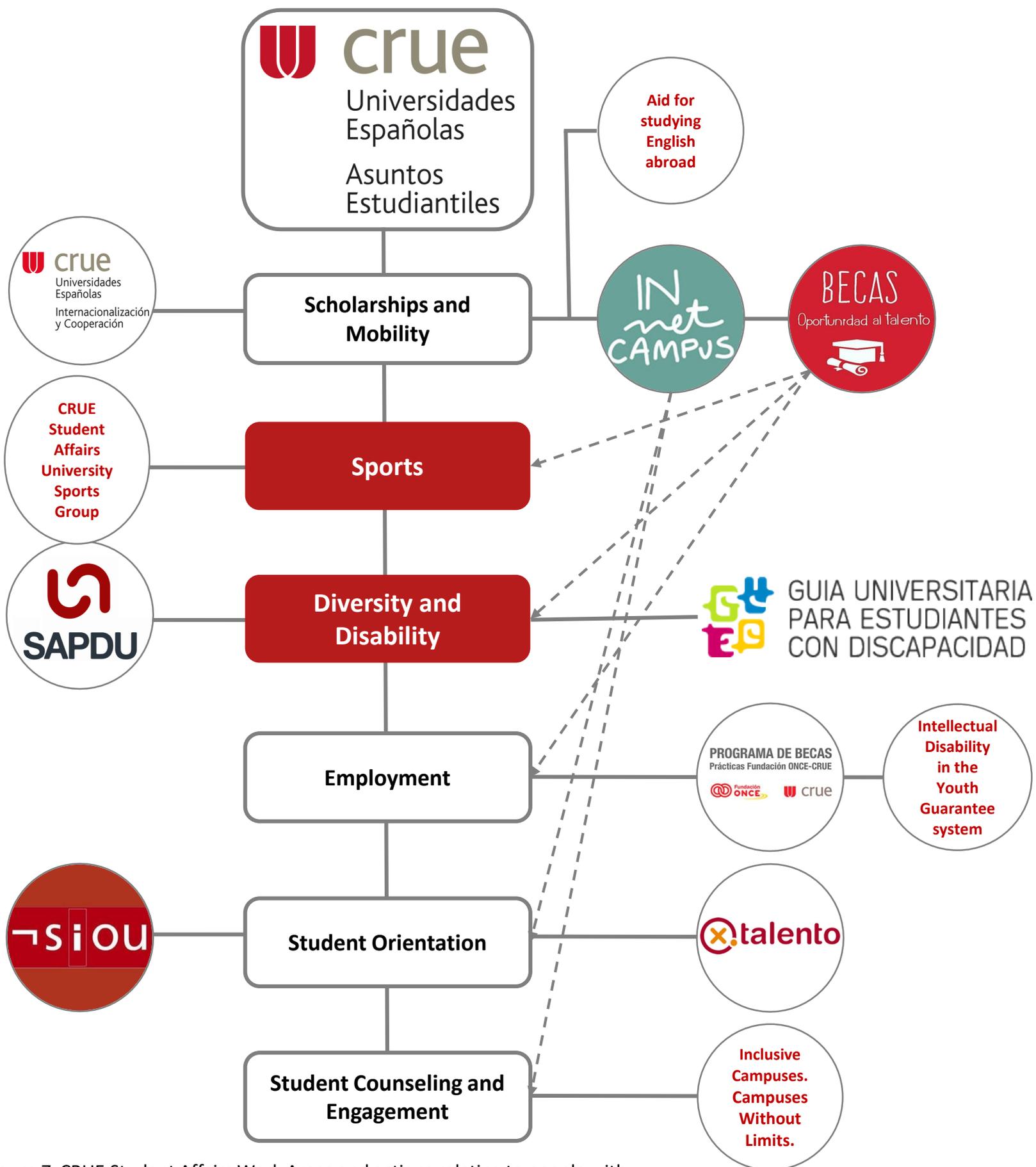


Figure 7. CRUE Student Affairs Work Areas and actions relating to people with disabilities promoted by the ONCE Foundation.

3.1. People with Disabilities at Universities

For its part, the *INnetCampus Project* has among its objectives: i) to promote the transnational mobility of young people with disabilities, ii) to promote access to universities for students with disabilities, thus reducing the high rate of early school-leaving that characterizes this group; iii) to give universities the opportunity to reach and meet potential students and identify opportunities for improvement for their campus; iv) to improve and promote the inclusion of people with disabilities in the university community, not only students but also research personnel, instructors, and administration and services personnel; and v) to disseminate best practices for all stakeholders involved in the implementation of an inclusive higher education system. In relation to this last point about best practices, this study will attempt to relate the potential contribution that physical activity and sports can have for the empowerment and improvement of employability competencies for university students with disabilities.

In the following pages, we will address the functions that Disability/Diversity and Sports Support Services have for students with disabilities, insofar as they are the two agents that are the object of this study, along with the reference group itself.

A study similar to this one, called "**Study on the Resources Available to Encourage Inclusion for University Students with Disabilities**," was conducted by the Support Center for University Students with Disabilities (UNIDIS) from the UNED with support from the ONCE Foundation and was also co-funded by the European Social Fund. The objective of this study was to have simplified information on the resources and measures that guarantee equal opportunity and the inclusion of university students with disabilities, allowing for the improvement of information among professionals and the search strategies among the students themselves.



 GUIA UNIVERSITARIA
PARA ESTUDIANTES
CON DISCAPACIDAD

The website for the aforementioned guide (access by QR code attached on this page) is structured in five sections related to five areas of accessibility: 1. Resources, measures, and actions for access to the university and permanence, 2. Physical accessibility for university agencies, 3. Technological and informational accessibility, 4. Support resources and adaptations in the teaching-learning and evaluation process, and **5. Other Programs/Actions.**

3.1. People with Disabilities at Universities

Table 1. Spanish Universities which have physical activity and sports programs/actions for university students with disabilities included in the University Guide for Students with Disabilities.

| University | Type | Accessible Sports | Adapted Sports | Accessible Leisure | Study Participant |
|-------------------------------------|---------|-------------------|----------------|--------------------|-------------------|
| ANDALUSIA | | | | | |
| Almería | Public | -- | -- | -- | No |
| Cádiz | Public | Yes | Yes | Yes | Yes |
| Córdoba | Public | No | No | No | Yes |
| Granada (CEUTA and MELILLA) | Public | -- | -- | -- | Yes |
| Huelva | Public | No | No | No | Yes |
| International of Andalusia | Public | -- | -- | -- | No |
| Jaén | Public | No | No | No | No |
| Loyola Andalusia | Private | -- | -- | -- | No |
| Málaga | Public | Yes | -- | Yes | No |
| Pablo de Olavide | Public | -- | -- | -- | Yes (*) |
| Seville | Public | Yes | -- | -- | No |
| ARAGÓN | | | | | |
| San Jorge | Private | No | No | D/C | Yes |
| Zaragoza | Public | No | D/C | D/C | Yes |
| CANARY ISLANDS | | | | | |
| La Laguna | Public | No | -- | No | Yes |
| Las Palmas de Gran Canaria | Public | No | No | Yes | No |
| CANTABRIA | | | | | |
| Cantabria | Public | Yes | -- | Yes | No |
| European University of the Atlantic | Private | -- | -- | -- | No |
| CASTILLA-LA MANCHA | | | | | |
| Castilla la Mancha | Public | Yes | Yes | Yes | Yes |
| CASTILE AND LEÓN | | | | | |
| Burgos | Public | No | No | No | No |

3.1. People with Disabilities at Universities

| | | | | | |
|----------------------------------|---------|-----|-----|-----|-----|
| León | Public | D/C | D/C | -- | Yes |
| Miguel de Cervantes | Private | -- | -- | -- | No |
| Pontifical of Salamanca | Private | No | No | Yes | No |
| Salamanca | Public | No | No | Yes | Yes |
| Santa Teresa de Ávila | Private | -- | -- | -- | No |
| Valladolid | Private | No | No | No | Yes |
| ARAGÓN | | | | | |
| San Jorge | Private | No | No | D/C | Yes |
| Zaragoza | Public | No | D/C | D/C | Yes |
| CANARY ISLANDS | | | | | |
| La Laguna | Public | No | -- | No | Yes |
| Las Palmas of Gran Canaria | Public | No | No | Yes | No |
| CATALONIA | | | | | |
| Autonomous Univ. of Barcelona | Public | -- | -- | Yes | No |
| Barcelona | Public | Yes | -- | No | Yes |
| Girona | Public | -- | -- | -- | Yes |
| International Univ. of Catalonia | Private | -- | -- | -- | No |
| Lleida | Public | No | No | No | Yes |
| Polytechnic Univ. of Catalonia | Public | No | -- | Yes | Yes |
| Pompeu Fabra | Public | No | No | Yes | No |
| Ramón Llul | Private | Yes | Yes | Yes | No |
| Rovira i Virgili | Public | No | No | Yes | Yes |
| Vic | Private | -- | -- | -- | No |
| COMMUNITY OF MADRID | | | | | |
| Alcalá de Henares | Public | -- | -- | -- | Yes |
| Alfonso X el Sabio | Private | -- | -- | Yes | No |
| Autonomous Univ. of Madrid | Public | Yes | -- | Yes | Yes |
| Camilo José Cela | Private | Yes | Yes | No | No |
| Carlos III | Public | Yes | No | Yes | Yes |

3.1. People with Disabilities at Universities

| | | | | | |
|--------------------------------|---------|-----|-----|-----|---------|
| Complutense Univ. of Madrid | Public | No | Yes | -- | Yes |
| Europea | Private | No | No | No | No |
| Francisco de Vitoria | Private | -- | -- | -- | No |
| Technical Univ. of Madrid | Public | Yes | Yes | Yes | Yes |
| Comillas Pontifical Univ. | Private | -- | -- | -- | Yes |
| Rey Juan Carlos | Public | D/C | -- | D/C | No |
| VALENCIAN COMMUNITY | | | | | |
| Alacant | Public | Yes | Yes | No | Yes |
| Católica de Valencia | Private | Yes | Yes | Yes | No |
| Jaume I | Public | No | Yes | No | Yes |
| Miguel Hernández | Public | Yes | Yes | Yes | Yes |
| Technical Univ. of Valencia | Public | Yes | -- | -- | Yes |
| Valencia | Private | Yes | Yes | Yes | Yes |
| EXTREMADURA | | | | | |
| Extremadura | Public | No | No | No | Yes |
| GALICIA | | | | | |
| Da Coruña | Public | No | No | No | Yes |
| Santiago de Compostela | Public | Yes | -- | Yes | Yes |
| Vigo | Public | -- | -- | -- | Yes (*) |
| BALEARIC ISLANDS | | | | | |
| Illes Balears | Public | -- | -- | -- | Yes |
| LA RIOJA | | | | | |
| La Rioja | Public | -- | -- | -- | No |
| MURCIA | | | | | |
| Católica San Antonio | Private | -- | -- | -- | No |
| Murcia | Public | No | Yes | Yes | Yes |
| Polytechnic Univ. of Cartagena | Public | No | D/C | Yes | Yes |
| NAVARRRE | | | | | |
| Navarra | Private | Yes | Yes | -- | No |

3.1. People with Disabilities at Universities

| | | | | | |
|---|---------|----|----|-----|-----|
| Public Univ. of Navarre | Public | No | No | No | Yes |
| BASQUE COUNTRY | | | | | |
| Deusto | Private | No | No | No | Yes |
| Mondragón | Private | No | No | Yes | No |
| Univ. of the Basque Country | Public | No | -- | Yes | Yes |
| PRINCIPALITY OF ASTURIAS | | | | | |
| Oviedo | Public | No | No | No | Yes |
| ONLINE/DISTANCE UNIVERSITIES | | | | | |
| A Distancia de Madrid | Private | No | No | No | No |
| International Univ. of la Rioja | Private | No | No | No | No |
| Isabel I | Private | No | No | No | No |
| National Univ. of Distance Education (UNED) | Public | No | No | No | Yes |
| Open University of Catalonia | Private | No | No | No | Yes |

- Participation in the study was only for students with disabilities who participate in competitive sports, where contact was made when they became recipients of the Opportunity to Talent Scholarships from the Once Foundation.

In Area 5 of the aforementioned University Guide for Students with Disabilities, called other Programs/Actions, we find a section on **Accessible Sports and Recreation**, which in turn includes 3 items: 1. specific accessible sports programs, 2. specific adapted sports programs, and 3. accessible recreation activities.

Figure 8 shows that only 32.9% of the 76 universities included in the Guide offer accessible recreation activities, a percentage that decreases when referring to accessible sports (23.7%), and adapted sports (17.1%). Such percentages could include those universities that would offer activities only depending on the context or demand from students with disabilities: 6.6% for inclusive recreation activities, 5.3% for adapted sports, and 2.6% for accessible sports. It should be mentioned here that only 15 (11 of them participants in this study) of the 76 Spanish universities listed in the Guide specify or mention such services, namely:

- Offering of own specific sports programs (Baskin at University from the University of Barcelona)
- Offering of adapted sports programs in collaboration with external entities (Ramón Llul and Zaragoza Universities)
- Offering of activities in collaboration with Degrees in Science for Physical and Sports Activity (San Jorge University)

3.1. People with Disabilities at Universities

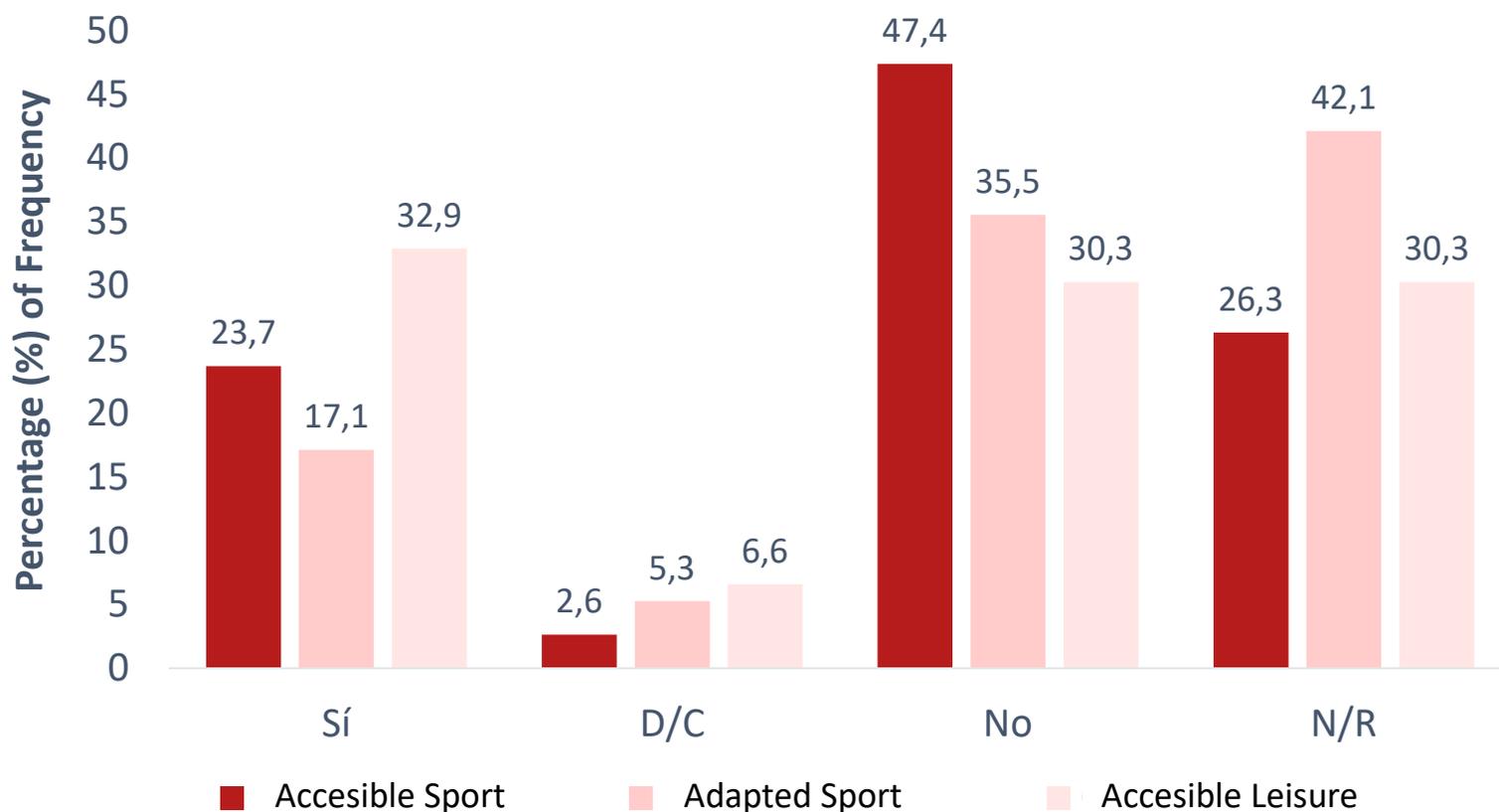


Figure 8. Percentage frequencies of offerings of physical and sports activity programs for people with disabilities. D/C = depends on the context or demand, N/R = no response.

- Information on accessibility of sports facilities, e.g. accessible pool, lift, accessible gym (Universities of Santiago de Compostela and Valencia)
- Information on availability of specific sports materials, e.g. sport wheelchairs (Miguel Hernández University)
- Links to other specialized services (Center for Applied Sports Psychology at the Autonomous University of Madrid or the Center for Studies on Inclusive Sports at the Technical University of Madrid)
- Link to the Sports Services website (University of Alcalá)
- Specific volunteer programs (University of Salamanca)
- Expression of commitment to offering or referral of general activities offered to the university community (León, Navarra, Oviedo and Polytechnic of Cartagena Universities)

Nevertheless, these results also show percentages between 30.3% and 47.7% where the non-offering of any of the three physical activity and sports programs is confirmed, which must be added to the percentages that range from 26.3% to 42.1% where there is no information about these.

Similar data is provided by the **Third Study on the Degree of Inclusion of the Spanish University System Regarding the Reality of Disability**, conducted by the Universia Foundation (2017a) in collaboration with CERMI. This study presents an executive summary articulated in 7 areas:

3.1. People with Disabilities at Universities

1. The university community with disabilities.
2. The support for students with disabilities.
3. Universal accessibility and design for all in the Spanish university system.
4. Disability in study programs and training plans.
5. Disability as a research topic for Spanish universities.
6. Representation and governance of Spanish universities.
7. An analysis of the the perception of students with disabilities on the degree of inclusion of the group at the university.

It is in area 3 where there is specific mention of Accessibility Plans in **Specific Leisure and Sports Programs**. The study shows that 36.4% of the universities that reported data claim to promote inclusive recreation and sports activities in which students with and without disabilities participate. However, 63.6% of universities did not report activities of this nature. These programs were offered at 40% and 25% of public and private universities, respectively; so the rate of non-offering or lack of programs was 60% for public universities and 75% for private universities.

Among the inclusive sports activities developed by the universities were: goalball, swimming, qigong, yoga, low-impact gymnastics, wheelchair tennis, and adapted scuba diving. In addition, it was indicated that some universities had begun to include students with disabilities in the university championships in Spain. In terms of inclusive recreation activities, the following stood out: adapted dance, art therapy, music therapy, cinema, etc.

Analysis of the evolution of the existence of specific inclusive recreation and sports programs shows an increase of 12 points compared to the 2013-2014 academic year (Figure 9). However, 64% of the universities do not consider this type of activities to encourage the inclusion of people with disabilities outside of the classroom, that is, in university extension activities.

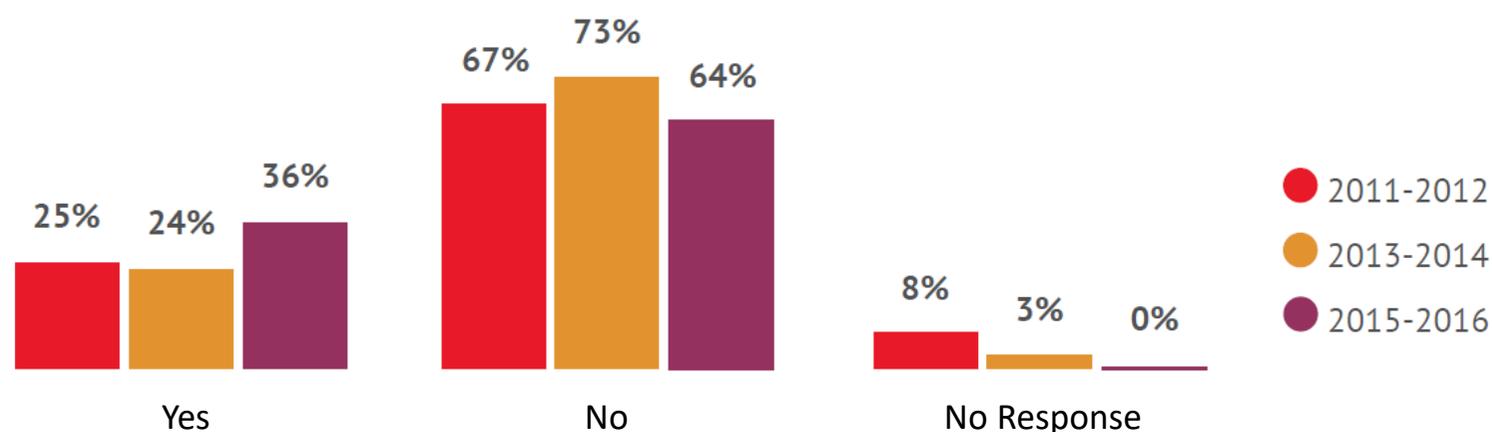


Figure 9. Evolution of the existence of specific inclusive recreation and sports programs.
Source: Universia Foundation (2016), page 79.

3.1. People with Disabilities at Universities

This data confirms the need to analyze the existing offering of physical and sports activity for university students with disabilities, as well as the underlying factors that would limit or facilitate this practice, with these being the main operational objectives of this study.

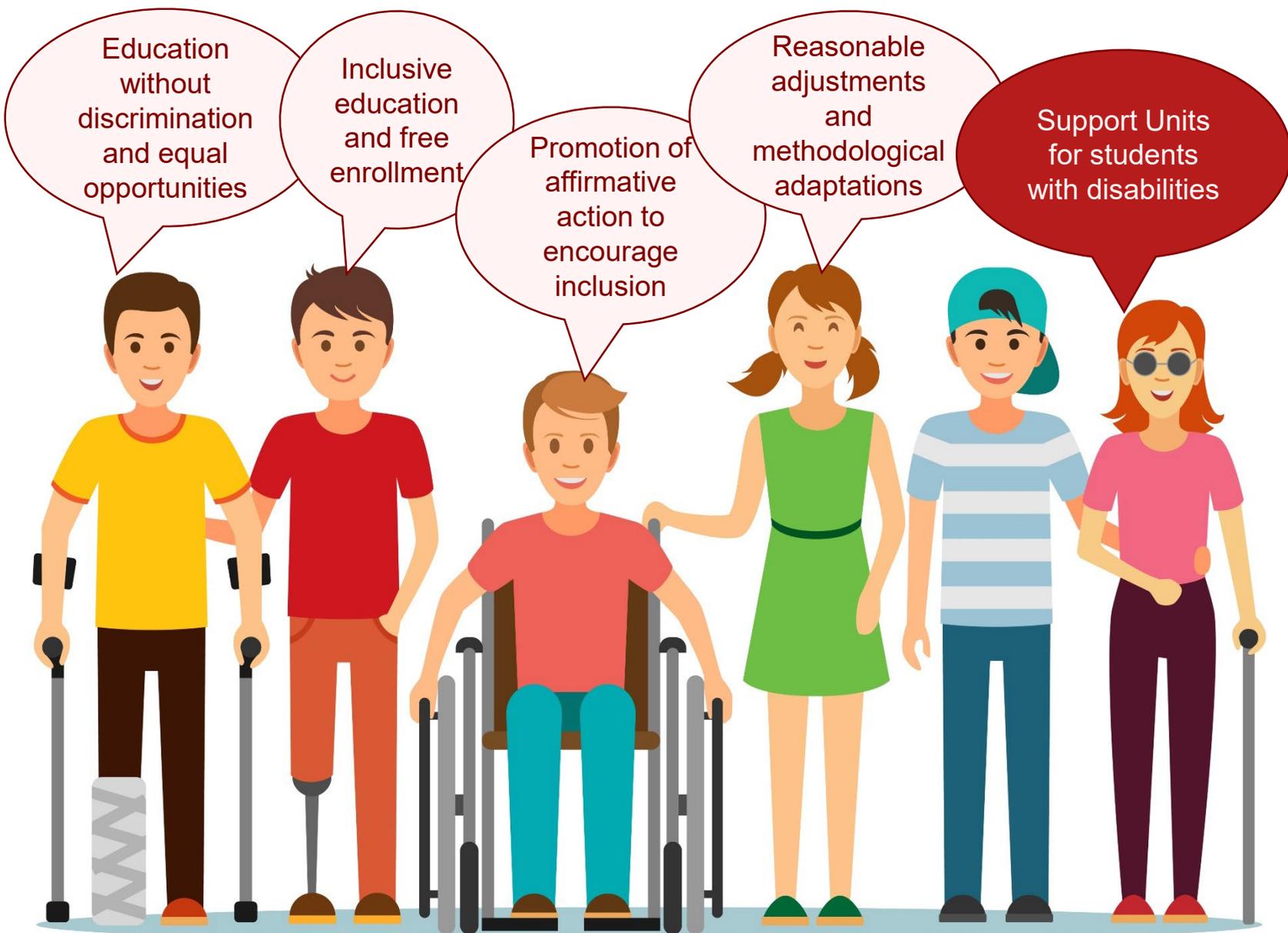
In the next sections of this chapter, we will analyze the role that Disability/Diversity Support Services and Sports Services has for students with disabilities at the university, establishing the backdrop that will allow for the subsequent presentation and interpretation of the results obtained with the present study.



“People taking university studies, whose disability severely hinders them from adapting to the system of exams established in general, may request, and the universities shall grant, in accordance with the provisions of their corresponding rules of continuance that, in any case, they must take into the account the situation of persons with disabilities who are studying at the university, the extension of the number of the same to compensate for their difficulty, without decreasing the level required. The tests will be adapted, where appropriate, to the characteristics of the disability presented by the interested party.”



Royal Legislative Decree 1/2013, from November 29, which approves the Consolidated Text of the General Law on the rights of persons with disabilities and their social inclusion. Article 20, c).



Rights of persons with disabilities at the University.

Source: University Guide for Students with Disabilities (ONCE Foundation, CERMI, UNED)

3.2. Disability Assistance Services

3.2. DISABILITY ASSISTANCE SERVICES AT UNIVERSITIES

Article 24 from the Convention on the Rights of Persons with Disabilities from 2006 (hereinafter, the Convention), ratified in Spain in Official State Gazette No. 96 from April 21, 2008 includes the tenets on *Education*. In its Second heading, it presents the following responsibilities of the Member States, so that:

- a) People with disabilities are not excluded from the general education system for reasons of disability, and children with disabilities are not excluded from free and compulsory primary education or secondary education for reasons of disability;
- b) People with disabilities can access inclusive and quality primary and secondary education, free of charge, on equal terms with others, and in the community in which they live;
- c) **Reasonable adjustments** are made based on individual needs;
- d) The **necessary support** is given to people with disabilities, within the framework of the general education system, to facilitate their effective training;
- e) **Personalized** and effective **support measures** are provided in environments that maximize academic and social development, in accordance with the objective of full inclusion.

Although headings a) and b) make explicit mention of the stages of primary and secondary education, headings c), d), and e) are perfectly applicable to higher education, where the previous sub-chapter discussed the rights provided in the LOMLOU and the University Student Statute. In addition, this right is also included in Article 27 of the Spanish Constitution, which recognizes, in sections 1 and 2, the right to education for all citizens, and this right shall have as its object the full development of the human personality in respect of the democratic principles of coexistence and fundamental rights and freedoms.

As guarantors of this equality of opportunity and provision of necessary supports during access, continuation, and occasionally, employability, Disability Support Services at universities play a vital role.

These services, under the umbrella of CRUE Student Affairs, are articulated in the so-called **SAPDU Network** (access to their website by attached QR code) or Network of Support Services for People with Disabilities at Universities. In order to facilitate the flow of discourse, and with respect to the stipulations of the Convention, we will use the term (University) Students with Disabilities.

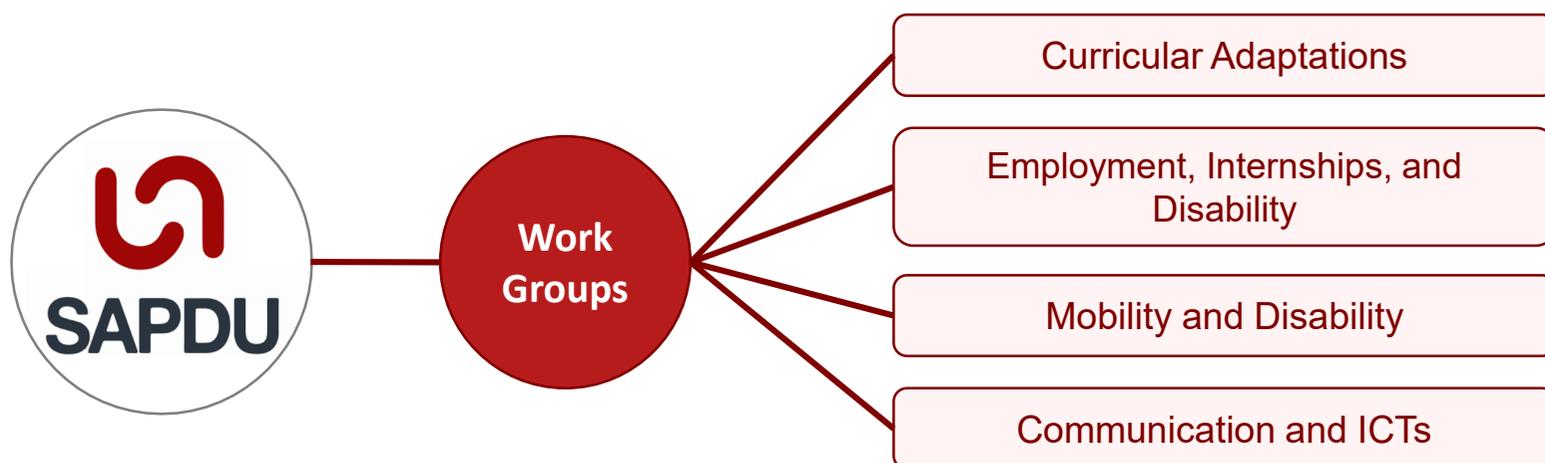


3.2. Disability Assistance Services

Decree 1393/2007 on the organization of undergraduate and postgraduate studies was a determining precursor for academic authorities to become aware of the need to join forces and propose common strategies for the support of students with disabilities at universities. After several actions and meetings, it was in December 2009 when the SAPDU Network was formed, approving its name, objectives, actions, and work groups.

The SAPDU Network objectives are operationalized as the following:

- Encouraging the collaboration of various university support services for students with disabilities.
- Proposing cross-disciplinary actions on disability issues that can be assumed the different universities.
- Proposing to the Educational Administration the adoption of measures for the effective fulfillment of what is regulated in the matter of disability.
- Proposing guidelines that lead to the effective and active incorporation of people with disabilities in the whole of university life. This must include teaching, research, and management activities, as well as extra-curricular activities, pursuing the normalization of their integration in universities, under the principles of equal opportunity, universal access, and universal design.
- Promoting, disseminating, and exchanging best practices.
- Promoting the recognition of disability services in the various university evaluation systems and their different activities.
- Encouraging the collaboration of the social fabric of the field of disability in the Network of Support Services for People with Disabilities at Universities.



If we deal with the work groups that constitute the Network, established after the election of the New Permanent Commission at the 8th National Meeting, held in Cáceres in October 2017, we see that the first of its groups is for **Curricular Adaptations**. This is perhaps one of the main actions of support services for students with disabilities, to the extent that they provide methodological resources (e.g., teacher support), materials (e.g., support products), or human supports (e.g., student collaborator, sign language interpreter), for the aforementioned equality of opportunity.

3.2. Disability Assistance Services

After several years of intense work, in December 2017, the **Adaptation Guide for Universities** (Rodríguez, Borrell, Asensi, Jaén, et al., 2017) was presented, a document that is the cornerstone for effective inclusion in university classrooms and a great support for teachers. This scope of action highlights the identity and importance of this work group, representing in the area of **Disability and Diversity** of CRUE Student Affairs.

In addition, we can see that **Employment and Internships**, as well as the **Mobility** group, satisfy two other CRUE Student Affairs action areas. The effective collaboration with internship services (curricular and extracurricular) and employment of Spanish universities, as well as national and international mobility services is one of the guiding axes of the activity of these groups. Thus, support services for students with disabilities become a valid intermediary for the management or mediation of actions in terms of internships, employment, and mobility that include specific measures or affirmative action for students with disabilities.

Finally, the **Communication and ICTs** work group aims to stimulate collaboration among the 59 universities that, by March 2018, constituted the SAPDU Network, generating and managing an active network for consultation and information exchange.

Another of the reference resources in regard to assistance for students with disabilities at Spanish universities is the **Guide to Assist Disabilities at the University**, which since 2011, has been promoted by the Universia Foundation (2017). In its 2017 version, there is a directory of 77 universities where information is provided on the provision of the following services:

- Curricular adaptations.
- Lessons with special attention to disabilities.
- Sessions and courses oriented towards disability.
- Seat reservation quota.
- Total exemption from fee payment.
- Welcome and orientation procedure for incoming students.
- Scholarships, grants, and credits.
- Web and electronic media accessibility.
- Accessibility of spaces and buildings.
- Accessible educational materials.
- SL interpreting.
- Volunteer programs.
- Specific counseling for people with mental illness.
- Orientation and labor intermediation actions.
- Actions to promote entrepreneurship.

Main work areas for the inclusion of people with disabilities in Spanish universities.

Accessibility and Signage



Access to the University (PAU/EBAU)



Curricular Adaptations and Access to the Curriculum

Internships, Employment, and Employability



National and International Mobility

University Extension?



*“All university students, regardless of their origin, have the right not be discriminated against on the because of birth, racial or ethnic origin, sex, religion, conviction or opinion, age, **disability**, nationality, illness, sexual orientation and gender identity, socioeconomic, idiomatic, or linguistic status, or political or union affinity, or because of appearance, being overweight or obese, or for any other condition or personal or social circumstance, with the sole requirement of acceptance of democratic norms and regulations, respect for citizens, constitutional basis of Spanish society.”*



ROYAL DECREE 1791/2010, from December 30, by which the University Student Statute was approved Chapter II of the rights and responsibilities of students, Article 4 on Non-Discrimination.



3.3. Physical Activity and Sports for University Students with Disabilities

We can assure that the offering of university extension activity, which includes **physical activity and sports**, was not present in these actions and guides that have been the basis of the inclusion processes for people with disabilities at universities. For this reason, in the following section we will analyze the current situation with regard to the subject that concerns us.

3.3. PHYSICAL AND SPORTS ACTIVITY FOR UNIVERSITY STUDENTS WITH DISABILITIES

Article 30 from the Convention on the Rights of Persons with Disabilities includes the tenets regarding participation in *cultural life, recreational activities, entertainment, and sports*. In the Fifth heading, it presents the following responsibilities of the Member States so that people with disabilities can participate on equal terms with others in recreational, entertainment, and sports activities:

- a) Encourage and **promote the participation**, to the greatest extent possible, for people with disabilities in general sports activities **at all levels**;
- b) Ensure that people with disabilities have the opportunity to organize and develop specific sports and recreation activities for such people and to participate in these activities and, to that end, encourage instruction, training, and adequate resources to be offered, on equal terms with others;
- c) Ensure that people with disabilities have **access to sports**, leisure, and tourist **facilities**;
- d) Ensure that children with disabilities have equal access with other children for participation in play, recreation, entertainment, and sports activities, including those that occur within the school system;
- e) Ensure that people with disabilities have **access to services** for those who participate in the organization of recreational, tourism, entertainment, and sports activities.

These five tenets clearly reflect the right that students with disabilities would have for accessing services and facilities for physical activity and sports services and facilities on equal terms. However, in view of the attention paid to this dimension of university life, we will briefly review the actions and legislative provisions that will serve as the basis for discussing the results of this study.

3.3.1. LEGISLATIVE PROVISIONS ON SPORTS AND UNIVERSITY ISSUES

ORGANIC LAW 4/2007, from April 12, which modifies Organic Law 6/2001, from December 21, on Universities.

Apart from the general provisions on inclusion listed above, the LOMLOU includes a title dedicated to sport and university extension, since in its preamble it considers that both sports and other activities covered are a crucial aspect in the education of university students.

3.3. Physical Activity and Sports for University Students with Disabilities

These provisions are included in Title XIV from the sports and university extension section, where we will highlight:

Article 90. *Sports at the university.*

1. “The practice of sports at the university is **part of the education of students** and it is considered of **general interest** to all members of the university community. It is up to the universities, by virtue of their autonomy, to **plan and organize sports activities and competitions** in their respective contexts.”
2. “Universities will establish appropriate measures to **encourage the practice of sports** for the members of the university community and, when applicable, will provide instruments for the **effective compatibility** of this practice with the academic training of the students.”

Article 91. *Coordination regarding university sports.*

1. “The coordination of university sports issues corresponds to the Autonomous Communities in the context of their territory.”
2. Without prejudice to the competencies of the Autonomous Communities, the Government, following the report from the Council of Universities and proposed by the General Conference on University Policy, will dictate the necessary arrangements for the general coordination of sports activities and will articulate methods for making the **studies of high level athletes compatible** with their sports activities.”

From the LOMLOU, it is also worth mentioning Article 46 i), where students can “obtain academic recognition for their participation in cultural, **sports**, student representation, solidarity, and cooperation activities for the university.”

Royal Decree 1791/2010, from December 30, which approves the University Students Statute.

Although in section 3.1.1 we explained the provisions contained in this Royal Decree in relation to students with disabilities, it should be noted here that in Chapter XII of this Statute, the articles relating to **sports activity of students** are established, which are of great interest for the topic that concerns us. In this regard, we would highlight:

Article 61. *General principles.*

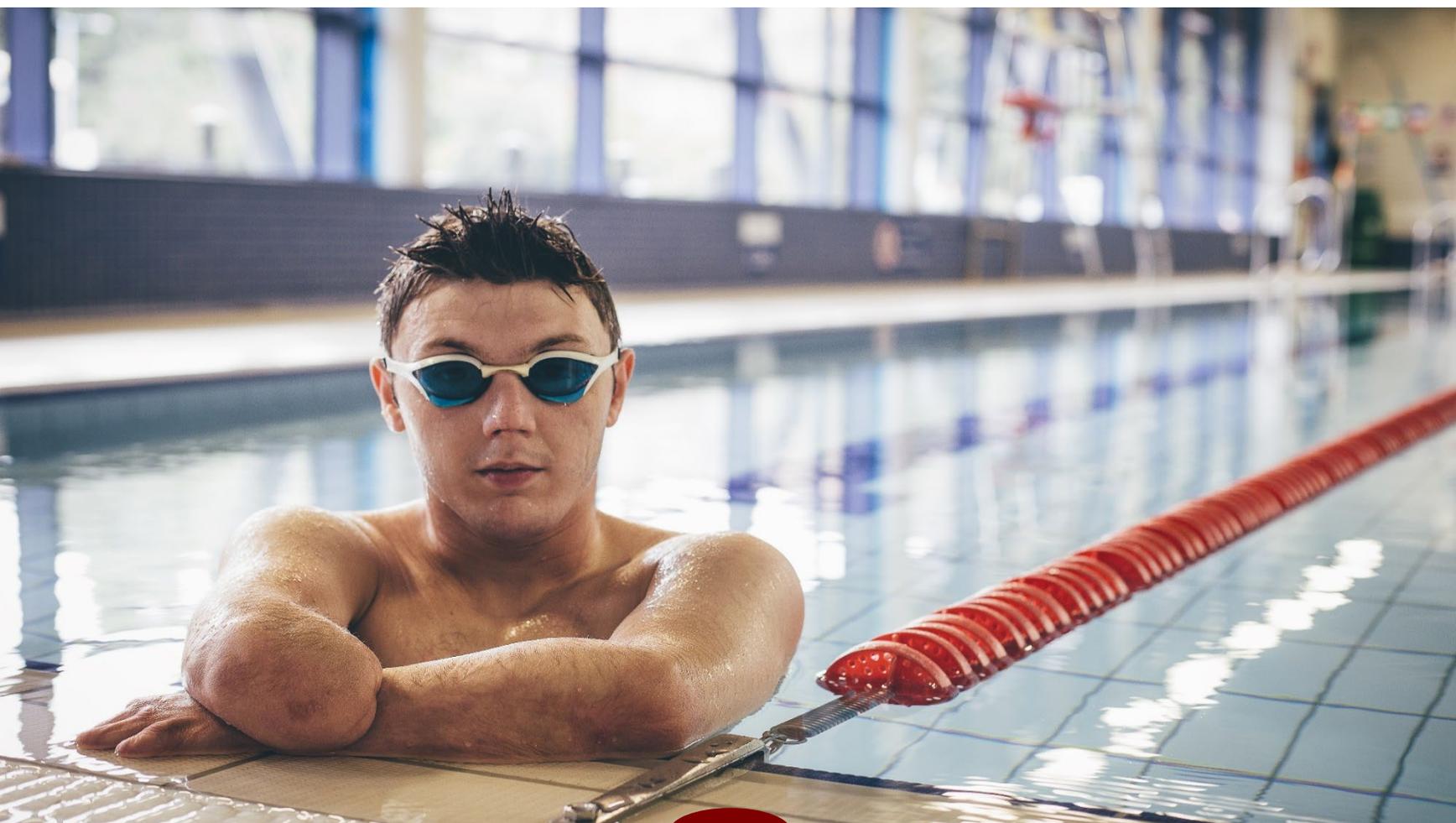
1. “**Physical and sports activity** is a **component of a student’s comprehensive education**. To this end, the Autonomous Communities and universities will develop structures and programs and will allocate sufficient material resources and spaces to accommodate the sports practice of students in the most appropriate conditions according to the uses.”
2. “Students have the right and responsibility to use and care for the facilities and equipment that the university places at their disposal, in addition to those others that develop their own regulations.”

3.3. Physical Activity and Sports for University Students with Disabilities

Article 62. *Physical and sports activity of students.*

1. “The sports activities of university students may be **oriented** toward the practice of **sports and non-competitive sports activities** or towards those organized in internal, regional, national, or international **competitions**.”
2. “Universities will promote the **compatibility of academic** and sports **activity** for students.”
3. “Universities will promote physical and sports activity, healthy lifestyle habits, and the development of values such as the spirit of healthy competition and fair play, respect for the opponent, inclusion, and commitment to teamwork and solidarity, as well as respect for the rules or regulations for the game and those who apply them.”
4. “Under the terms established by the current organization, universities will facilitate access to the university, guidance and monitoring systems and systems for the compatibility of students and sports practice for students recognized as high-level athletes by the National Sports Council or as athletes of a skilled or similar level by the Autonomous Communities.”
5. “In addition, **universities will promote physical and sports activity programs for students with disabilities, facilitating the means and adapting facilities** in each case.”

We see how Article 62.5 from the University Student Statute declares the issue of concern to us, justifying the need for this study, which allows us to understand the current situation of offerings in the matter and to be able to design future actions.



3.3. Physical Activity and Sports for University Students with Disabilities

Royal Decree 1393/2007, from October 29, which establishes the planning of official university education.

After stating the right for access to physical and sports activity in the university stage, Article 12.8 of this Royal Decree stipulates that “students may obtain **academic recognition as credits for participation in** cultural, **sports**, student representation, solidarity, and cooperation **activities** for the university. For the purposes of the above, the study program must include the possibility for students to obtain recognition for at least 6 credits over the entire study program for participation in the aforementioned activities.”

3.3.2. LEGAL PROVISIONS ON RESPONSIBILITY FOR UNIVERSITY SPORTS ISSUES

LAW 10/1990, from October 25, on Sports.

Article 3.5, on general principles, stipulates that “the State Administration shall coordinate, in the manner determined by regulations, the **sports activities of Universities** that are at their state level, and their **promotion** in order to ensure their international scope, taking into account the competencies of the Autonomous Communities and the Universities themselves.”

In addition, in Article 8, on the *National Sports Council* (CSD), in its provision j) stipulates that it is the responsibility of the CSD to “coordinate the **programming of** school and **university sports** with the Autonomous Communities when it has national and international scope.”

Royal Decree 460/2015, from June 5, approving the National Sports Council Statute

Article 5, on the chairman of the CSD, stipulates in section 4.d) the chairmanship of the Spanish Committee of University Sports, identifying the responsibility of this entity in the matter.

However, the Third Section on the *governing bodies* stipulates, in Article 8 on the *Directorate General of Sports*, which is responsible for “promoting organizational and promotional actions developed by sports associations, and scheduling, in collaboration with the Autonomous Communities, school and **university sports competitions of national and international scope**” (heading m). In addition, heading ñ) of this same Article states that it must “propose, elaborate, and develop norms, actions, and measures aimed at removing obstacles that impede the **equality of high-level athletes with disabilities**.”

For its part, the Second Final Provision, which modifies Article 5 of Royal Decree 971/2007, from July 13, on high-level athletes and high performance, is about athletes with physical, intellectual, or *sensory disabilities*. Athletes with state federation licenses or approved regional licenses with physical,

3.3. Physical Activity and Sports for University Students with Disabilities

intellectual, or sensory disabilities who possess a sports license and who meet some of the following requirements, are considered high-level athletes:

- a) “In the case of categories or individual sports events, those who have been classified among the first three place of any of the following competitions: the Paralympic Games, the Deaflympic Games, World Championships, specialty European Championships, organized by the International Paralympic Committee, or by the International Federations regulating each sport, and who categories are recognized by the National Sports Council, without prejudice to what may be exceptionally agreed by the Evaluation Committee of High Level Sport.”
- b) Same provision as in the previous heading a), but for team categories or sports events.

In addition, the support specialists for athletes with physical, intellectual, or sensory disabilities who are considered high level athletes will also be considered high level athletes provided they have participated in some of the competitions indicated above, and if they meet the following requirements:

- a) “They collaborate in the training and competition of athletes with disabilities through high-intensity physical effort;
- b) Their performance occurs simultaneously with the athletes with disabilities and occurs throughout the entire competition;
- c) The support athletes appear in the official classification of the Championship with the results obtained and they receive a medal in the same award ceremony as the athletes with disabilities.”

After the analysis of the current situation for the matter of university sports for people with disabilities, we will make proposals to encourage and stimulate the practice of competitive sports both in the Regional University Sports Championships (CADU) and the Spanish University Championships (CEU), as well as at the international level.

3.3. Physical Activity and Sports for University Students with Disabilities

3.3.3. OTHER ACTIONS AND STUDIES OF INTEREST RELATING TO SPORTS PRACTICED BY UNIVERSITY STUDENTS WITH DISABILITIES

CSD Support Plan for Grassroots Sports (ADB) 2020

The ADB 2020 Plan is a plan that aims to broaden the base of those practicing sports and to create optimal conditions for the detection of sports talent and comprehensive training, both in sports and academics. The ADB 2020 Plan is considered an event of exceptional public interest, being led by the National Sports Council and with the collaboration of the Young Sports Foundation, the Spanish Sports Federations, and the Autonomous Communities.

This strategy intends to create innovative and facilitating actions to achieve the commitment of increased and improved young athletes, and on the other hand, seeks to spark the interest and economic support of the business sector. The ADB Plan 2020 projects and activities are developed around two major programs: Support for School Sports (ADE) and **Support for University Sports (ADU)**, the latter being the object of our interest. The general objectives of the ADB 2020 Plan are (CSD, 2016):

- **Increase physical activity and sports practice** in the school and **university** population.
- Improve and innovate detection and technification programs for **young athletes**.
- Achieve **optimal motivation and progression** of athletes at all stages of their career, both for sports and academics: **from the base to the elite**.

The following summary table lists the specific objectives and priority areas of action in the aforementioned ADU sub-Plan, some of which will be the subject of discussion due to their specific attention to university students with disabilities.

SPECIFIC OBJECTIVES

- Increase the practice of physical and sports activity among university students.
- Update and enhance University Competitions at the state level.
- Integrate international university competition in the area of high performance sport.

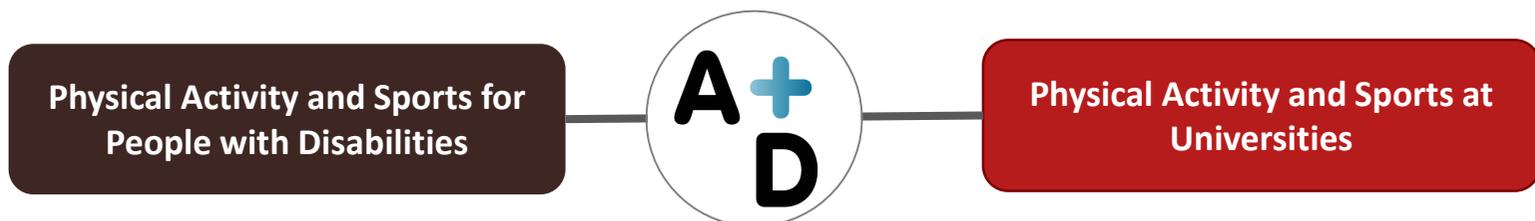
PRIORITY AREAS OF ACTION

- Specific campaigns to promote sports at universities.
- Spanish University Championships. Modernization and prominence.
- National university teams for international competitions: integration into the high performance plans of the Spanish Sports Federations.

3.3. Physical Activity and Sports for University Students with Disabilities

Comprehensive Plan for Physical Activity and Sports (A+D)

In the process of specifying the objective and need for the present study, it is worth mentioning the A+D Plan that the CSD published in 2009, insofar as it proposes policies regarding Physical Activity and Sports Programs for People with Disabilities (Program 4) and at the University (Program 8), with its main objectives and strategic measures:



- Generalize the practice of physical activity and sports for citizens with disabilities, preferably in an inclusive environment and within a setting close to their social and family context.
- Guarantee access, use, and enjoyment in the design of sports facilities as a fundamental element for equal opportunities.
- Improve the training and specialization of sports managers and citizen awareness.
- Promote the regular practice of physical-sports activity at universities in order to contribute to the comprehensive training of students, as well as boosting the transmission of educational values and improving the health and well-being of the university community.
- Guarantee a suitable, broad, and sufficient offering to all people that make up the university community at each of the Spanish Universities.
- Encourage collaboration between universities and society to facilitate access to the practice of physical activity, with special attention to women and **groups with special needs**.

Action
18

Inclusion of Disability at Educational Institutions

Action
19

Adapted Physical Activity for People with Disabilities in the Health System

Action
20

Professional Specialist Profiles in Adapted Physical Activity

Action
21

Manual of **Best Practices** in Physical Education and Inclusive Sports Physical Activity

Action
22

Integration of Athletes with Disabilities in University Sports Federations

Action
38

Promotion of Physical Activity and Sports at Spanish Universities

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Map of University Sports Facilities

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Collaboration with the Spanish Network of Healthy Universities

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Volunteering and Cooperation through University Sports

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Quality Management System for University Sports Services

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National Program of **Championships** for Spanish University Students

3.3. Physical Activity and Sports for University Students with Disabilities

Diagnostic Study of Spanish University Sports

The study completed by Almorza et al. (2011) conducted a thorough analysis of the Spanish university sports system, presenting a battery of indicators that would contribute to the development of the actions for Program 8 of the A+D Plan. In this study, 51 of the 70 universities invited (72.9%) participated, of which 39 were public and 12 private. Given the scope of this study, we highlight below the most remarkable findings in terms of physical activity and sports for people with disabilities:

- Only 10 of the 51 universities (19.6%) reported completing a specific campaign targeted for the group of people with disabilities.
- A distinction is made between campaigns targeted for groups with disabilities (n = 10) and handicaps (n = 4), as the latter term is no longer used.
- The activities offered, on a regular basis, from sports services was only present for 1 of the 51 participating universities (University of Girona).

These results show some worrisome data regarding the offerings for physical activity and sports specific to students with disabilities, not including information on programs or offerings for recreation and/or inclusive sports.

Study on Adapted Sports at Spanish Universities

The study from Campos, Llopis, Torregrosa and Badenes (2016) had the following objectives: i) describe and analyze the situation of adapted sports at Spanish universities, ii) identify the deficiencies and weaknesses of the university system for the support of people with disabilities in the context of physical activity and sports; and iii) propose improvement actions to guarantee equal opportunities and accessibility for students with disabilities for sports.

This article is great interest for the objectives of the present work, although here it is reported from the viewpoint of the professionals from support services for students with disabilities in order to identify the barriers that could underlie the deficit in access and the offering of physical and sports activities for the group of concern to us. The study from Campos et al. (2016) has, like ours, a total of 40 participating universities, and was carried out between November 2013 and May 2014. The most notable conclusions of this study were:

1. *Awareness of the importance of adapted sports and development problems:*
 - Consideration that the situation of adapted sports at universities participating in the study is slightly better than the existing situation for Spanish universities in general.
 - Sense that society as a whole caters better to adapted sports than the university environment.

3.3. Physical Activity and Sports for University Students with Disabilities

- Greater awareness of the professionals from Physical Education and Sports Services and Rector Teams from Universities than from the students themselves.
 - 69.9% showed a lack of incentives, both in society in general and in university institutions, as the main barrier for the development of sports for people with disabilities at Universities.
2. *Offering of sports activities for students with disabilities:*
 - The offering of specific activities of adapted sports (38.1%) was lower than that of inclusive activities (52.4%).
 - 47.6% showed interest in the development of specific activities while 66.6% claimed to have the same intention with respect to inclusive activities.
 3. *Sports participation and profile of those practicing sports:*
 - Generalized lack of knowledge about the number of people with disabilities at their universities.
 - Limited sports practice of students with disabilities, as well as low frequency on the part of those who performed some type of sports activity.
 - Noted as the causes of limited sports practice for people with disabilities were: i) the limited demand for this type of activity; and ii) the majority perform their sports activity mainly outside of the university environment.
 4. *Accessibility and resources for the adapted sports offerings:*
 - Of the 40 participating universities, 81% stated that they had an accessibility plan for their sports facilities and equipment, while 77.8% stated that they adapted these to the needs of the group.
 - 60.4% confirmed having some materials and equipment for the practice of sports by students with disabilities.
 - 23.8% of the sample indicated that their Physical Education and Sports Service had a person in charge of adapted sports, and 14.3% had action protocols for those people with disabilities who wished to practice some sports activity at the university.
 - 54% said they did not have a trained specialist to participate in sports activities for people with disabilities and 71.4% said that they did not have a person dedicated to the management of and participation in adapted sports.
 - 15.9% of the sample had teams, sections, or representatives from adapted sports in individual categories, while 9.5% indicated the same regarding team categories.
 5. *Promotion of adapted sports:*
 - The most valued measures for promoting adapted sports at universities were, in order of importance: 1) credit recognition for participating in sports competitions; ii) credit recognition for participating in recreational activities; ii) training of specialists and students from Physical Activity

3.3. Physical Activity and Sports for University Students with Disabilities

- and Sports Sciences; and iv) sports tutoring and sports volunteering.
- The promotion of adapted sports within university institutions was based on actions oriented to issues related to diversity support, so that: three out of ten respondents said that adapted sport was included in the Strategic Plan of the Universities, while six out of ten respondents stated that their Strategic Plans did include issues related to the support of diversity.

With the existing evidence for the subject of physical activity and sports for people with disabilities at the university stage presented, in the next chapter we will present the results obtained in the present study, expanding, clarifying, and creating new knowledge about the limited evidence on the topic of concern to us.



Chapter 4

Study Results



Chapter 4

Study Results



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Chapter 4.1.

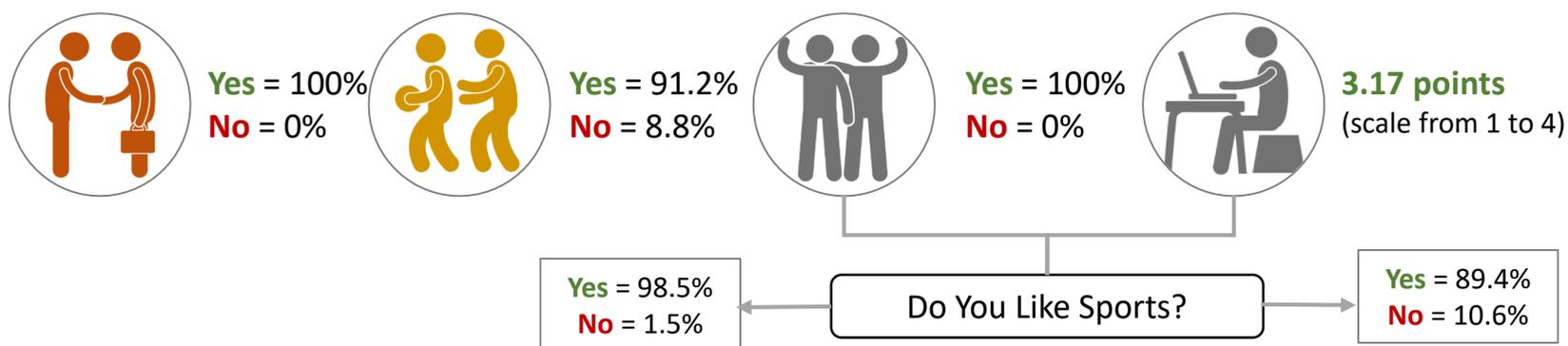
Profile of Practice and Perceived Benefits Relating to Physical and Sports Activity for University Students with Disabilities



4.1. Perceived Benefits of Physical Activity and Sports

4.1.1. IMPORTANCE OF PRACTICING PHYSICAL AND/OR SPORTS ACTIVITY DURING THE UNIVERSITY STAGE: PROFILE AND SPORTS HABITS OF STUDENTS WITH DISABILITIES

The consideration of the importance given to Physical Activity and/or Sports during the university stage in relation to people with disabilities is quite high for all of the groups that are the object of this study. In this sense, the Disability Support Services and the students with disabilities themselves give 100% importance to the practice of physical activity and sports during the university stage, a percentage that stands at 91.2% for the Physical Activity and Sports Services for the participating Universities. After asking this question online, the 350 students surveys gave an importance of 3.2 points on a scale of 1 (*not important*) to 4 (*very important*).



When asking students with disabilities if they liked the practice of physical activity and sports, we found that 98.5% of those interviewed said Yes as did 89.4% of those who did the online questionnaire.



More than 90% of those interviewed considered the practice of physical activity and sports for university students with disabilities as important, and more than 90% of the students with disabilities said that they practice it.



4.1. Perceived Benefits of Physical Activity and Sports

The students with disabilities from the participating Universities were asked, both those who agreed to the face-to-face interview and those who completed the online questionnaire, about whether they **practiced physical and/or sports activity on a regular basis**. 91% of the students interviewed in person practiced it regularly compared to 78% of those not interviewed in person (Figure 10).

When asked (only for those surveyed online) if the sports practice they performed was within the context of Competitive University Sports (CADU, CEU), we found that 95.1% of the students responded negatively, with 2.3% who practiced it regularly, only once (1.4%), or who had done so outside of the university or at another university that they attended (1.1%) (Figure 11).

Although there was a high rate found for students who claim to practice physical and/or sports activity, with the rate higher for students interviewed face-to-face, it is noted that the practice of competitive university sports had a totally opposite trend. These results can be interpreted by the fact that:

- There was possible bias or effect called about the first question, that is, those students with interest in the subject of the study agreed to the interview or completed the online questionnaire.
- Those who play sports regularly perform the competitive aspect outside of the university context (e.g. specific sports for people with disabilities).
- Students with disabilities have greater interest in performing physical and/or sports activity for health or leisure purposes.

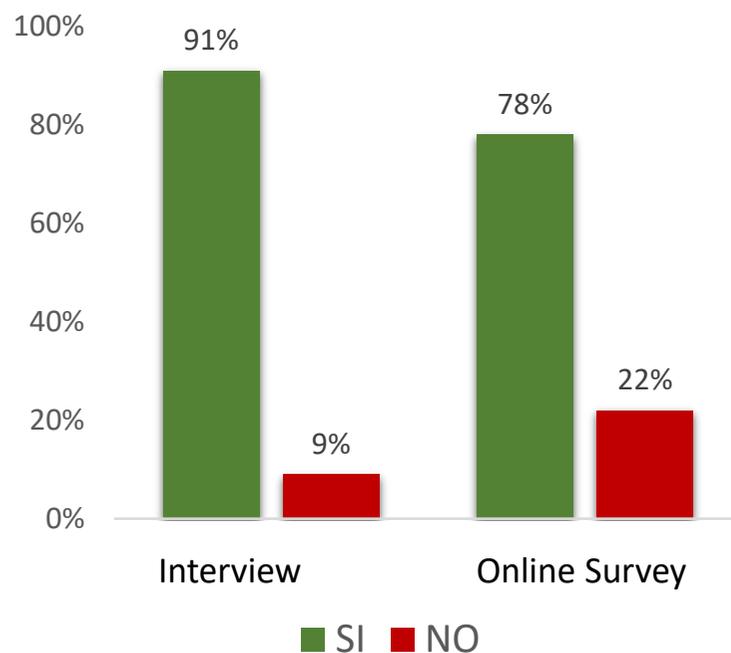


Figure 10. Percentages of practice for physical and/or sports activity by the students interviewed/surveyed.

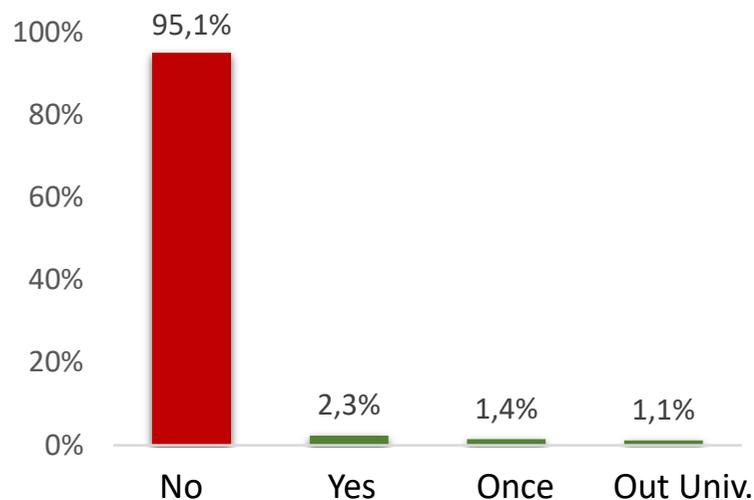


Figure 11. Percentages of participation in competitive university sports activities.

4.1. Perceived Benefits of Physical Activity and Sports

On the other hand, Figure 12 shows the **most practiced physical and/or sports activities** where swimming/aquatic activities, directed activities (spinning, yoga, Pilates, aerobics), indoor or fitness activities, and running stand out. This group activities most noted by students has in common that they do not fit into a competitive approach, except swimming in some cases, and that they are more related to health, recreation, or leisure. This result is supported by the frequency of walking, hiking, or cycling in the next places.

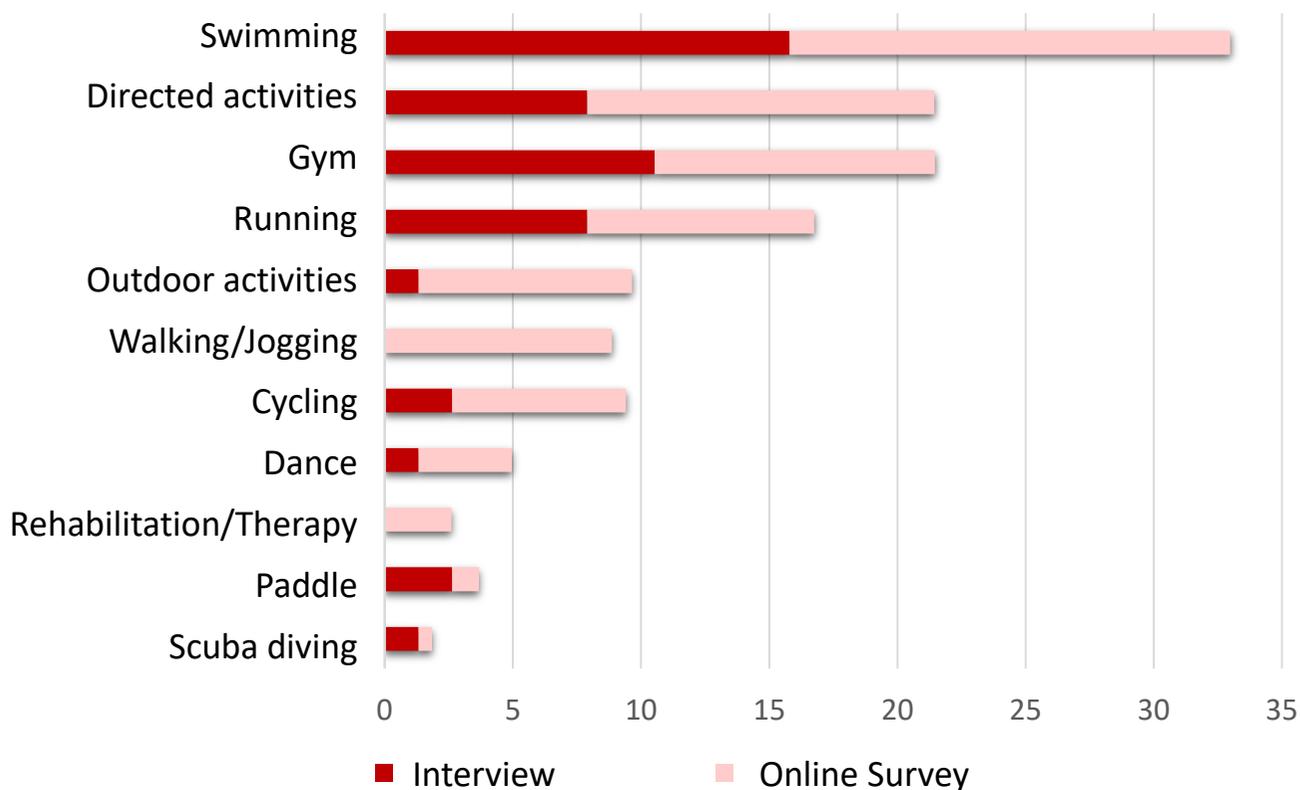


Figure 12. Percentages of activities practiced for health, recreation, or leisure purposes.

Conversely, Figure 13 shows those sports categories practiced with a purpose more oriented towards results and/or competition, whether as part of university sports or not. When dealing with specific sports categories, we can observe a greater variety of activities practiced by students with disabilities, but a lower frequency accumulated in them. In addition, we can see that the incidence of specific sports for people with disabilities, such as soccer for people with visual impairment, wheelchair basketball, goalball, Boccia, or wheelchair slalom. This result is mainly due to the fact that the students with disabilities interviewed had to regularly practice sports, as was requested to the collaborating universities.

4.1. Perceived Benefits of Physical Activity and Sports

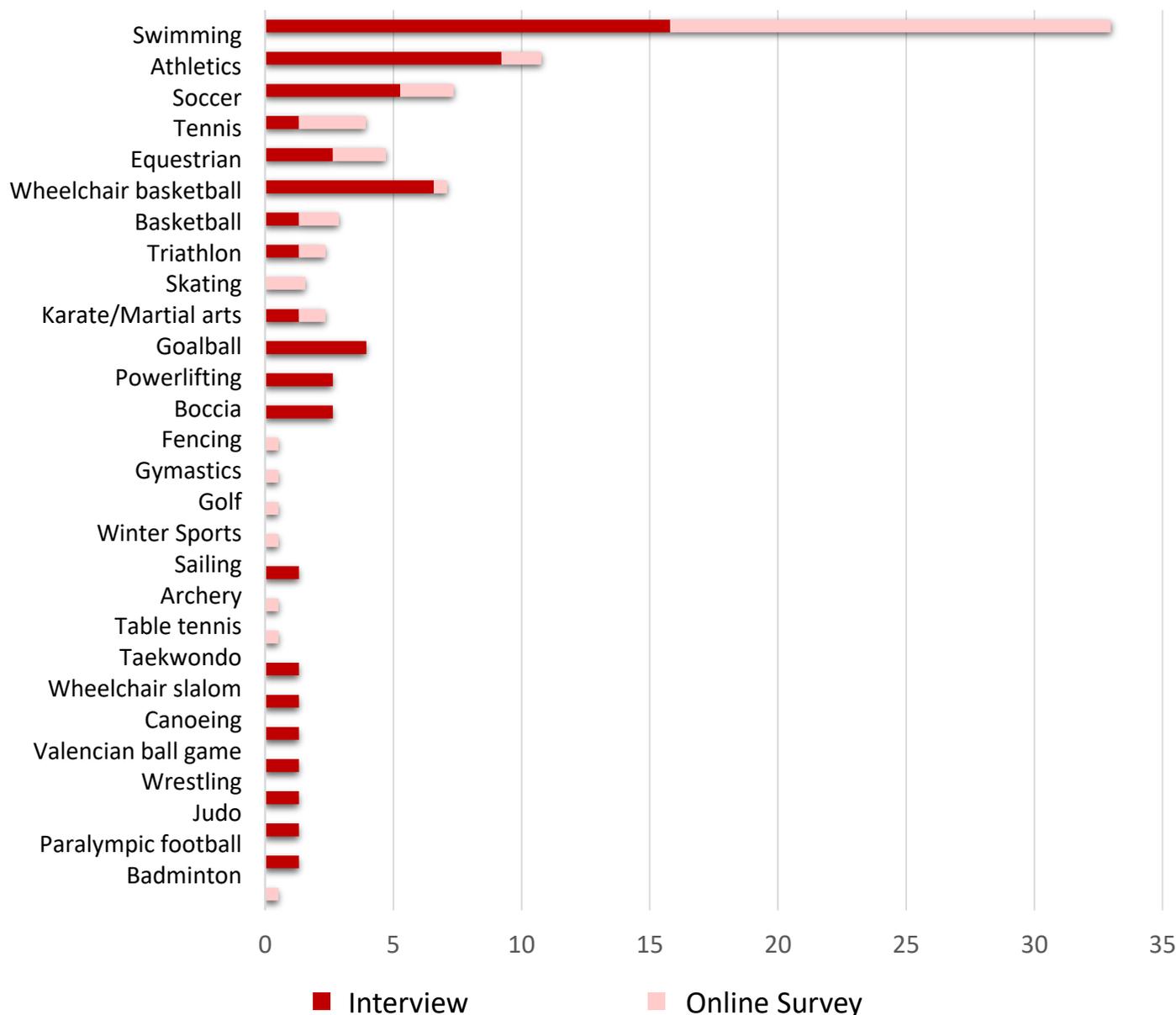


Figure 13. Sports activities reported most frequently (as %) for competitive purposes.

As can be seen in Figures 12 and 13, swimming/aquatic activities is the most referenced, both by the students interviewed and those who completed the online survey. It has not been possible to establish feasible differentiation between when this physical/sports activity is performed for health/recreation or for competition. In any case, this result is consistent with the use of the aquatic environment as a means of rehabilitation for the group that we are dealing with (e.g., weightlessness, greater functionality in water, relaxation, etc.), and that swimming is one of the Paralympic sports with the most licenses at present, as well as some of first university sports competitions for people with disabilities occurred in this discipline (year 2016, 7 participants in the CEU).

Thus, the preference for the practice of a specific sports category would be dependent on the interest of the student, the offerings, or the transfer to competitive practice outside of the university.

4.1. Perceived Benefits of Physical Activity and Sports

From the qualitative analysis of the responses from the students interviewed in person, we can extract a series of interesting arguments about the participation and inclusion of university students with disabilities in competitive university sports, as we have indicated below (accompanied by evidence of content, that is, first person speech excerpts):

- Participation in physical and sports activities during the university stage would be an element that would reflect the **progress of inclusion processes**:
 - *“I believe that inclusive sports are important in any context, for universities, on the streets, and any other contexts.”*
 - *“...the heats were organized with all of the swimmers, regardless of whether they had disabilities or not, but that they included all of us together.”*
 - *“...that you can get involved in university life at both the training and competition levels.”*
- Participation in physical and sports activity would help **equal opportunities** and the **normalization** of people with disabilities:
 - *“we are quite a few students with disabilities and from the first moment we have been encouraged to participate in these competitions. We have participated in the rector tournament and in the university championship nationwide. Us girls only in swimming.”*
 - *“I think it’s much easier to do this type of joint integration or participation for university-based sports...”*
- The **opportunities for competition** are subject to the demand of the group itself and the coordination between universities:
 - *“...it does some things done that exceed the costs it has. But it is missed that there are no swimming sports and no pool sports offered.”*
- The **limited attendance** of students with disabilities in sports activities in the university context can be derived from the lower number of people with disabilities at universities themselves or from their attitude against competitive sport:
 - *“At and institutional and bureaucratic level, it may look very good, but I am a little against everything competitive...”*
 - *“I personally have never been to see competitive sports and I would not like to compete.”*
- The offering of **specific activity or activity with adaptations** for the practice for people with disabilities would increase participation in university sports competitions:
 - *“...but it is true that there may be differences because certain things are not yet adapted. Then, there you would notice the difference in performance, but first it would have to be adapted well.”*
 - *“But since the sports that I do is basketball, it’s complicated to do a CADU for wheelchair basketball.”*

4.1. Perceived Benefits of Physical Activity and Sports

- Participation in physical and sports activities during the university stage can be a means of **empowerment** for SWD:
 - *“...when we go to some kind of competition and we talk to people who are not familiar with this sector, they tell us, ‘Thank goodness we have you to realize the effort that things require and the need you really have,’ so it’s beneficial that we are there.”*
- The need for **training of specialists and professionals** as a preliminary step for participation in university sports for SWD is noted:
 - *“...because they themselves think that they have to compete in ordinary categories and do not know that we have our own categories.”*
- Reference is made to the importance of **collaboration with external entities** with sports competitions for people with disabilities:
 - *“It’s only missing a little bit of interest, awareness, and for the conventional federations to get into contact with the adapted sports federations and vice versa. Because I think is going to be unavoidable in a few years.”*
- **Specific supports and resources** are required for participation in competitive university sports:
 - *“...they dedicate themselves to sports because their governments support them. It’s their job. That here is unfeasible.”*
 - *“...maybe at other schools they have no idea how to adapt it for me. There are rules that are not integrated right now and you have to open your mind a little more...”* (Student from Physical Activity and Sports Sciences)
- We still find arguments related to the **stigma** that represents a barrier for participation in competitive university sports:
 - *“I also know people who are deaf who are ashamed that people know it...”*
 - *“I have not seen any students with disabilities in the rector trophy, at least with a visible disability.”*

Finally, it should be noted that the International Physical Activity Questionnaire (IPAQ) completed by students with disabilities online show a student profile who performs an average of 3.2 days per week (2.6 < > 3.9) of physical and/or sports activity. The **WHO Recommendations on Physical Activity for Health** (WHO, 2010) indicate that adults should devote at least 150 minutes a week to the practice of aerobic physical activity of moderate intensity, or 75 minutes of vigorous aerobic physical activity every week, or an equivalent combination of moderate and vigorous activities. Our data shows that these recommendations are far from the recommendations of moderate physical activity (1.43 hours vs. 2.5 hours recommended), although it matches with the recommendations for intense or vigorous activity. However, such recommendations propose that in order to obtain health benefits, adults must increase the practice of moderate aerobic physical activity to 300 minutes per week, or 150 weekly minutes of intense aerobic physical activity, or a combination of moderate and vigorous activity. Based on these recommendations, we can see that the practice levels are **below such recommendations**.

4.1. Perceived Benefits of Physical Activity and Sports

Table 2. Average values reported on the International Physical Activity Questionnaire (IPAQ)

| | Physical | | Visual | | Auditory | | Psychosocial | | Average |
|-------------------------------------|----------|---------|--------|---------|----------|---------|--------------|---------|---------|
| | Males | Females | Males | Females | Males | Females | Males | Females | |
| Weekly Frequency | 3.46 | 3.10 | 3.89 | 3.08 | 2.94 | 3.07 | 3.10 | 2.60 | 3.15 |
| Intense Physical Activity Days | 2.23 | 1.85 | 3.05 | 1.82 | 1.94 | 1.40 | 2.77 | 1.58 | 2.08 |
| Hours of Intense Physical Activity | 1.23 | 1.12 | 1.16 | 1.48 | 1.92 | 1.42 | 1.09 | 1.08 | 1.31 |
| Moderate Physical Activity Days | 2.05 | 1.63 | 2.05 | 1.06 | 1.50 | 1.40 | 0.70 | 1.97 | 1.55 |
| Hours of Moderate Physical Activity | 1.43 | 1.69 | 1.19 | 1.19 | 1.07 | 1.12 | 1.08 | 2.69 | 1.43 |
| Days Walking | 5.12 | 4.59 | 5.30 | 5.59 | 4.88 | 5.27 | 4.87 | 4.79 | 5.05 |
| Hours Walking | 1.54 | 1.31 | 1.35 | 3.08 | 1.60 | 1.42 | 3.48 | 2.21 | 2.00 |
| Hours Sitting | 6.69 | 7.06 | 6.16 | 6.37 | 5.30 | 4.92 | 10.67 | 6.90 | 6.76 |

This profile is complemented by the higher frequency of walking, with a frequency of 5.1 days per week (4.6 <> 5.6) and an average of 2 hours per day (1.3 <> 3.5). In addition, it is important to highlight the large amount of time that respondents are sitting throughout the day, with an average of 6.8 hours per day (5.3 <> 10.7).

These data seem to be in line with those published by the Ministry of Education, Culture, and Sports (Pérez-Corrales, 2017), where only 11.6% (doing sports) and 37.9% (walking) of people with severe limitations perform physical activity for health purposes. When functional limitations do not have a severe impact on physical activity, these percentages increase to 30.3% (sports) and 67.3% (walking). If we look at the results from the IPAQ for university students with disabilities surveyed online, we find a negative correlation ($p < 0.01$) between the percentage of disability and the hours of walking per day for health purposes ($p < 0.01$), meaning that **the higher the degree of disability, the fewer hours per day are walked** for health purposes. Figure 14 also shows significant differences in this regard when comparing the three ranges created ad hoc on the percentage of disability.

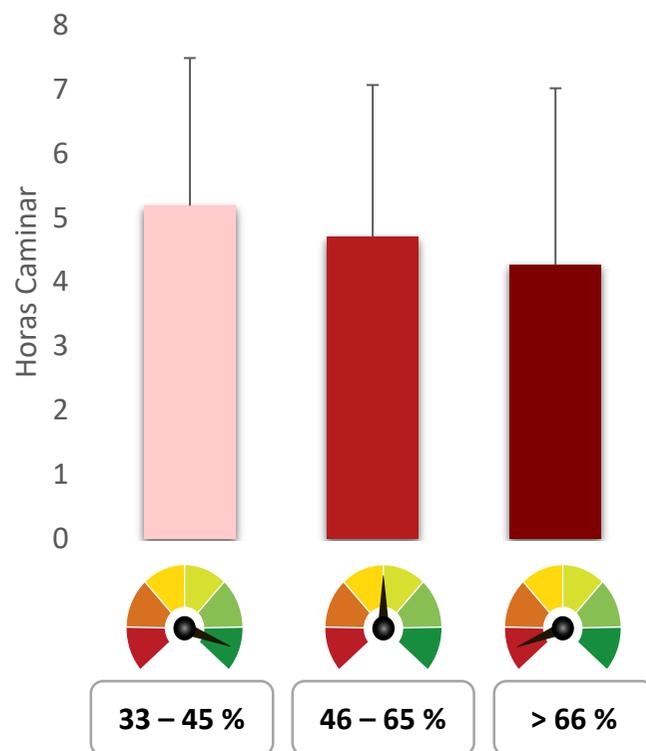


Figure 14. Hours of walking per day declared on the IPAQ for the different disability ranges.

4.1. Perceived Benefits of Physical Activity and Sports

4.1.2. BENEFITS DERIVED FROM PRACTICING PHYSICAL ACTIVITY AND SPORTS FOR STUDENTS WITH DISABILITIES

For the analysis for this section of the study, with which we will conclude Chapter 4.1, we will use the evidence obtained from the face-to-face interviews with the managers/specialists from the Disability Support and Sports Services from the collaborating Universities, as the from the students with disabilities.

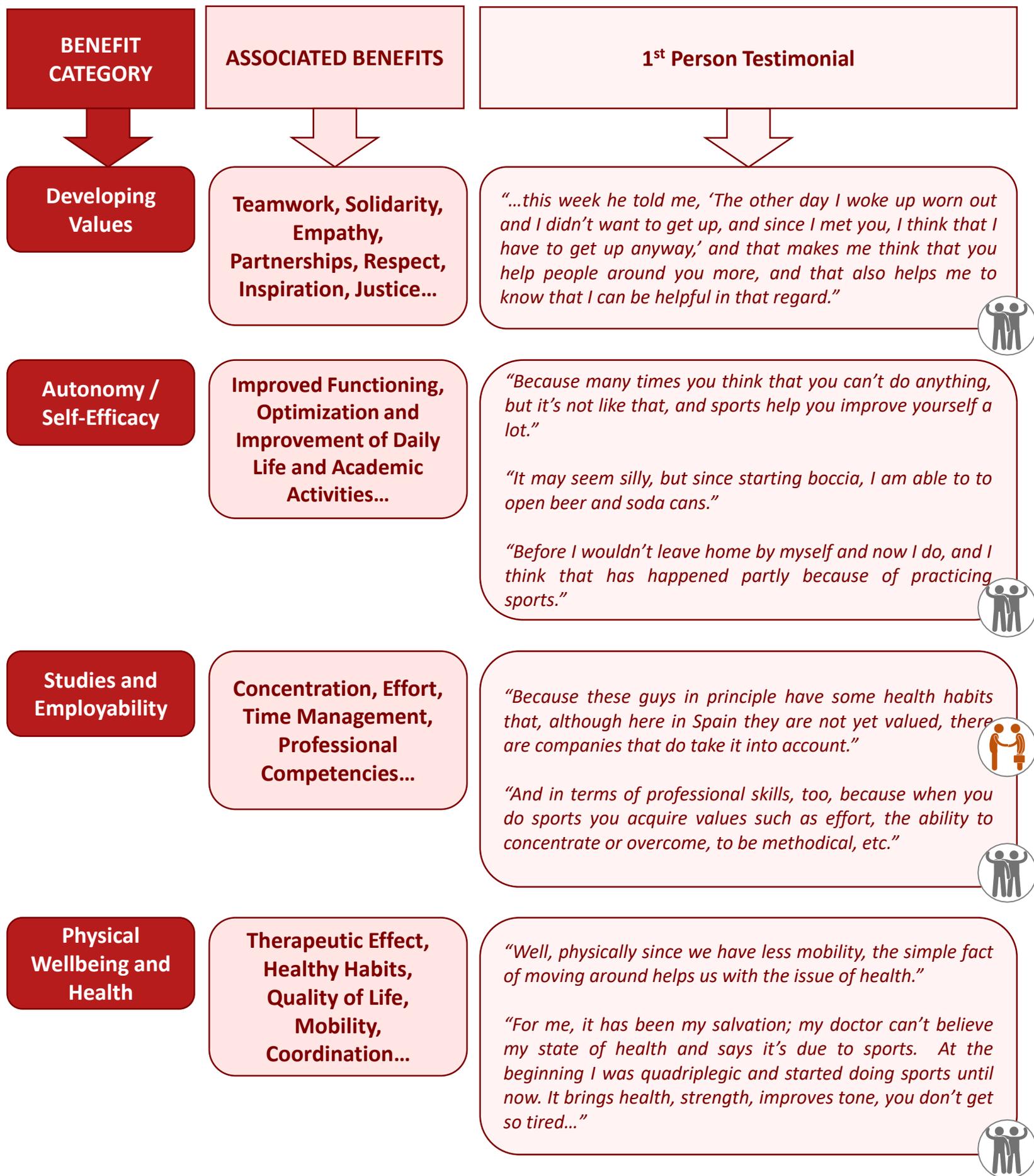
Table 3 shows the main categories of benefits extracted from the content verbalized from the three stakeholders interviewed. We also indicate (with an "X"), the incidence of such categories in each one or several of the interest groups, and we will clarify the content of these and they will be supported with discourse excerpts, most of them indicated by the students themselves.

Table 3. Benefits of the practice of physical and sports activity by students with disabilities.



| |  |  |  |
|---|--|--|--|
| Developing Values | X | X | X |
| Autonomy / Self-Efficacy | X | X | X |
| Benefits for Studies and Employability | X | X | X |
| Physical Wellbeing/ Health Improvement | X | X | X |
| Getting to Know the Environment / Inclusion | X | X | X |
| Enjoyment | | | X |
| Effort | X | X | X |
| Avoiding Isolation / Getting to Know Others | X | X | X |
| Gaining Confidence / Empowerment | X | | X |
| Releasing Stress / Reducing Anxiety | X | X | X |
| Improving Self-Esteem / Self-Concept | X | X | X |
| Organization / Balance | X | X | X |
| Satisfaction and Pride | X | | X |
| Travel / Leaving Comfort Zone | X | X | |

4.1. Perceived Benefits of Physical Activity and Sports



4.1. Perceived Benefits of Physical Activity and Sports

Getting to Know the Environment and Inclusion

Meeting up with Others, Exchanging Experiences...

"It's important for everyone. Because I live in the pure and difficult academic university and I see everything there. Sports, theater, Erasmus... and all of this is the university and it helps for seeing the world from another perspective. Of course, like any other student."

"Very important. Because I believe that it's a form of socialization, of breaking down barriers, of learning to live in a more inclusive society, but not only for people with disabilities, also for other people. Let us learn to see people with disabilities as equals."



Enjoyment

Satisfaction, Well-Being...

"I believe that that it has many benefits. Even psychological. I feel better doing sports, I feel better about myself, and I feel good when I do it. I like it a lot."



Effort

Competitiveness, Overcoming, Effort...

"...you are very used to fighting for what you want and to improving yourself."

"...it gives you some skills that you wouldn't get otherwise. Having competitiveness makes you much more competent in all areas. You learn to appreciate what everything takes and that you can get it with hard work."



Avoiding Isolation

Social Relationships, Community, Belonging, Integration...

"So I think that's why it would be very interesting and sports also makes them come out of that kind of refuge that this community sometimes finds itself in."



Confidence / Empowerment

Initiative, Persuasiveness...

"...a beastliness. One of the things that I always say is that sports, apart from improving your health and getting to know people and places, make you realize that if you think you are reaching your limit and in the end you overcome it and you will go much farther and that allows you to overcome all your barriers. You break the stereotypes that you previously had. I'm 5th in the world, runner-up in Europe. And who would have said that when I was in 2nd for ESO [Secondary Compulsory Education] and didn't even know about Paralympic sports?"



4.1. Perceived Benefits of Physical Activity and Sports

Reducing Stress and Anxiety

Ability to Disconnect, Liberation, Catharsis...

"This makes you more aware that you can overcome barriers or that it was not actually a barrier, but that it could be that we created it. So you create more knowledge about yourself and break previously conceived stereotypes."



"...you improve the ability to concentrate, to forget about stress, to improve your level of physical condition, your self-esteem, your control, and many other values such as consistency, self-help, the snack that you make when you are studying your swimming and then you back to studying like crazy..."



"It's the best way to counteract the harmful effects of current lifestyle habits, such as working sitting down or how badly we eat. In addition, sports is way to release the stress and tensions from studying."



"Sports is way of escaping, of help, that takes you out of very extreme and negative thoughts."



Improving Self-Esteem and Self-Concept

Acceptance, Knowledge of Limits and Possibilities...

"Because we can get into telling the benefits of sports, but in the area of disability there are other much more subtle benefits such as improvement in self-esteem, self-concept, the mirror with other people, and seeing that they are not the only ones."



"...the well-rounded education of a person."



Organization

Balance, Optimization of Time and Schedule

"...when it comes to managing times for training and then studying and to make sure not to overlap the training and studying schedules."

"...just having enough time also makes you learn to manage your time well."



4.1. Perceived Benefits of Physical Activity and Sports

Satisfaction

**Pride, Competition,
Success,
Achievement...**

"And what is achieved in sports is a series of skills and competencies that are not available from the library."

"It makes you break barriers and water is a medium where you don't notice disability as much, and for me personally it relaxes the tone and it suits me."



Travel / Comfort Zone

**Mobility,
Management of
Expectations...**

"I think it could be even more so. It's not because there is a lot of lack of knowledge about us being there and that they can do all kinds of activities just like any other student."

"Although we don't know how to push them to practice it."

"...dedicate time to sports and physical activity and disconnect from technology."



4.1. Perceived Benefits of Physical Activity and Sports

At this point, to conclude this Chapter, we can conclude that four groups of **Benefits** have been identified in relation to the practice of physical activity and sports for university students with disabilities: **Physical, Cognitive, Psychological, and Social.**

As examples, we have included discourse excerpts from the groups of interest that support these finding, typical of the bio-psycho-social model of disability.



Physical Benefits

*“Sports, whatever the form, will always give you positive values. In addition, it also has do with the issue of **quality of life** which has do with how you sleep, how much you rest, how you eat, how much physical activity you do per day, etc. And physical activity is also very important for getting ready for an exam because **studying is also training**. If you train your body, the training of your mind is the same and it will be **easier for you to study and then work.**”*



*“It’s important for all students. And in the case of students with disabilities, which are not in an association, the fact of participating in an activity facilitates social relationships, self-confidence which in some cases is complicated, their self-esteem rises, self-confidence, the physical improvement they can achieve can **also help their day to day**, their **daily life skills**. It has been widely demonstrated that physical activity provides an improvement in self-esteem and self-concept which is very useful for their quality of life. And even more so for these groups that **are very sedentary**, very overprotected. It serves to normalize their social relationships.”*



*“You learn **skills that help you with your day to day**. For example, as a result of practicing slalom you become more agile and I have one leg that is better than the other because it’s the one that I push myself with.”*



“...it has helped me a lot after the accident to be in shape, because they told me that I might not be able to walk and was put in the pool and from there I improved until I was able to walk, with a lot of work...”

*“...sports is like an escape route during the whole of studying you have a few hours to **clear your mind**, and it helps you to free yourself.”*



*“**Mentality agility**, acquiring a bit of reflexes also, being **more decisive**, communication between people, it gives you confidence in yourself...”*



Cognitive Benefits

4.1. Perceived Benefits of Physical Activity and Sports



Psychological Benefits

*“If you play sports, you have a physical and mental state, and if you don’t play sports, you don’t have it. So that has to help you at the **self-esteem** level, for social relationships, and at the level of how you relate to yourself.”*

*“I believe that it can help them and it can do well to **motivate them**, to gain **self-confidence**, and it can come in handy for their studies and then in working life.”*

*“Those that improve their physical condition because it allows them to improve their mobility, their **adaptation to some workplaces**, but also all those that are in the relational context, customer service, contact with other people, at the communication level. It gives them a confidence and skill that they might not have had. It always depends on the case for each person, but in general, yes, teamwork also is going to provide some values that they can develop if they have not done so yet.”*

*“...well it allows me to completely disconnect, it helps improve my quality of life, it physically helps me to eliminate mental blocks and anxiety, it gives me **health**. It gives me the power to **enjoy** an activity and it helps me to increase my **self-esteem**. It helps me gain **confidence** in myself as you **challenge** yourself. When you see that you reach the challenge that you set for yourself, this helps increase your self-esteem and that self-esteem helps you to improve in your studies because you remember that your sports successes can be applied to your successes as a student, and then you gain **independence** and self-esteem. And this is applicable to all areas of your life.”*

*“Well, it also give you **less stress, less tiredness**. Because if I’m stressed I go running and it helps me to release the stressful feeling that studying creates. Seeing myself with high self-esteem and high independence. For example, now I don’t see myself going a month without doing sports because not doing so would make me look bad and I would be more tired or would get tired more quickly than if I did practice sports.”*



Social Benefits

*“Yes, it helps you **relate** and to raise your self-esteem if you win, and if you are on a team, that has a positive influence. I remember a Senegalese girl with many problems, violence and other problems, so what we did was welcome her here and looked for a room for her. The first thing I did was talk with MAT and she made goalball, and for her that year was very important because she won a medal; she **had never done any sports** and it was very rewarding for this girl.”*

*“From social skills such as knowing how to act when you receive a medal, going up, speaking in public, you have to improve all of that. **English**, you will have to improve your English if you **increase in yours sports category** in case you compete internationally, to know how to speak, etc. Many times **social skills** come with age.”*



4.1. Perceived Benefits of Physical Activity and Sports

*"...sport is the **socializing** foundation par excellence."*

*"Sports are very important. Because in the university context, it is a time in which students have an age range where sports are important for them at the level of physical appearance, at the level of social relationships, at the level of **contact with other peers from other environments**, in relation to the European level with all of the **mobility grants**, and so then sports is a key element."*



*"I think that sports are very unifying. Thanks to soccer I started **connecting with other peers**, to **travel**, to acquire **social relationships**... and I think that person with functional diversity is even doubly important, because it gives you many **social skills**, gives you discipline, the ability to struggle and sacrifice that **is often lacking at work**... sports helps you achieve all this, so I see as it as essential."*





Chapter 4.2.

Barriers and Facilitators for Access to and Practice of Physical Activity and Sports for University Students with Disabilities



4.2. Barriers and Facilitators

4.2.1. PERCEIVED BARRIERS TO THE PRACTICE OF PHYSICAL AND SPORTS ACTIVITY

In this first sub-chapter, we explain the importance given to a series of barriers included ad hoc in the face-to-face interviews with the three groups of interest. They were asked to rate on a scale of 1 (“no barrier”), 2 (“there is a barrier, but it can be overcome”), 3 (“there is a barrier, difficult to overcome”), and 4 (“complete barrier”) for a series of **General**, **Social Interaction**, and **Accessibility** contextual factors that could potentially be barriers to the access and duration of the practice of physical and sports activity for university students with disabilities.

Figure 12 shows that students give a somewhat higher average rating (2.1) to the set of General barriers, followed by the managers and specialists from Disability Support Services (1.9) and Managers/Specialists for Physical and Sports Activity Services (1.7). Since the ratings are around 2, (1-4 scale), we could say that barriers are noticed, but they are able to be overcome, for most of the

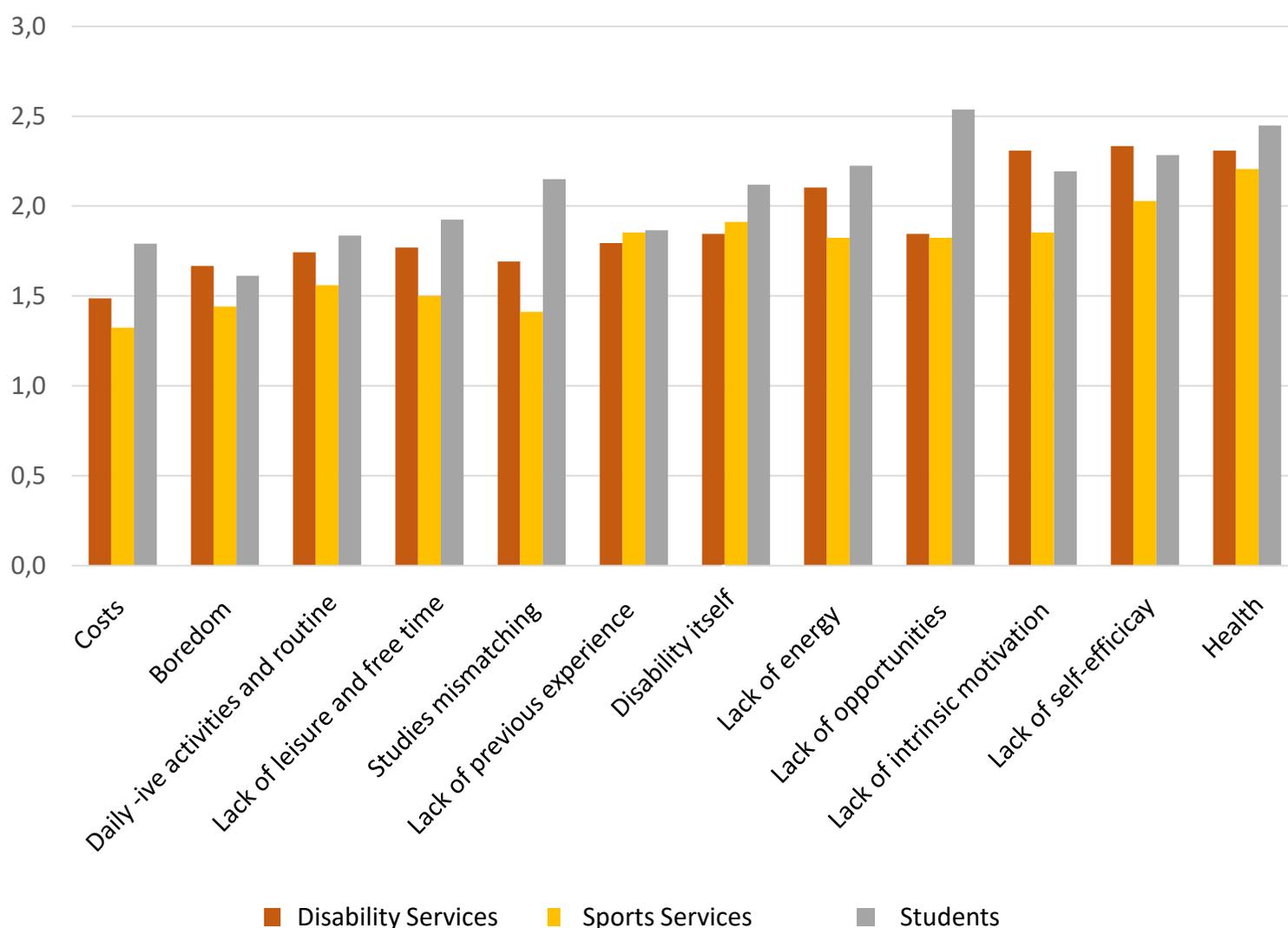


Figure 15. Ratings given for the perception of barriers of a general nature.

4.2. Barriers and Facilitators

dimensions included in the interview. In this sense, the three barriers with the highest average rating are **health reasons** (2.3), **lack of perceived self-efficacy** (a person's belief in their ability to succeed in a particular situation) (2.2), and **lack of intrinsic motivation** (doing something for the mere satisfaction of doing it without needing any external incentive) as well as the **lack of opportunities** (2.1). Regarding this last barrier, we observe that the rating given by SWD is clearly higher than that of the Services managers/specialists (2.5), and something similar occurs with compatibility or **balance with studies** (2.1).

Regarding Social Interaction barriers, Figure 16 shows lower average ratings, although students are still the group that perceives a greater barrier, although able to be overcome (1.6) than the Services managers/specialists (1.4). The three identified factors that could further restrict participation in physical and sports activity were **social attitudes** (1.8), the presence of a **close relative** (1.7), and access to a caregiver or **support staff** (1.6). It should be noted here that there is greater perception of a barrier to **social attitudes** (2.0) that students with disabilities have compared to Services managers/specialists (1.6).

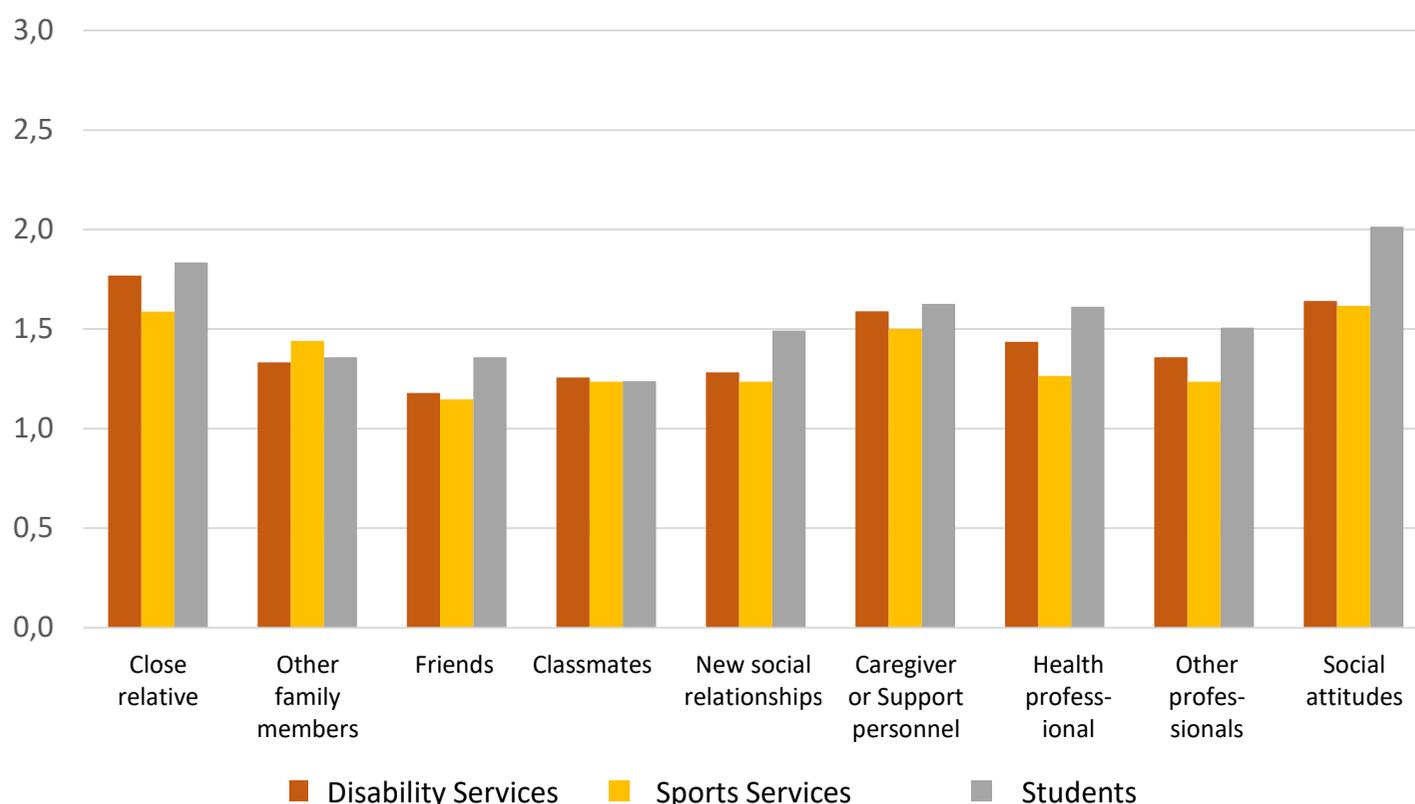


Figure 16. Ratings given for the perception of social interaction barriers.

4.2. Barriers and Facilitators

In terms of barriers for the **accessibility** dimension (Figure 17), both at the physical and informational level, students are again those who perceive the greatest barrier (2.0), but able to be overcome, compared to the opinion of the managers/specialists from Disability Support Services (1.6) and Sports Services (1.5). **Lack of information** was pointed out as the greatest barrier by the three stakeholders interviewed (1.8 for Services and 2.3 for students), in addition to the students considering the barriers relating to **facilities** and **public transportation** (2.0) to a greater extent.

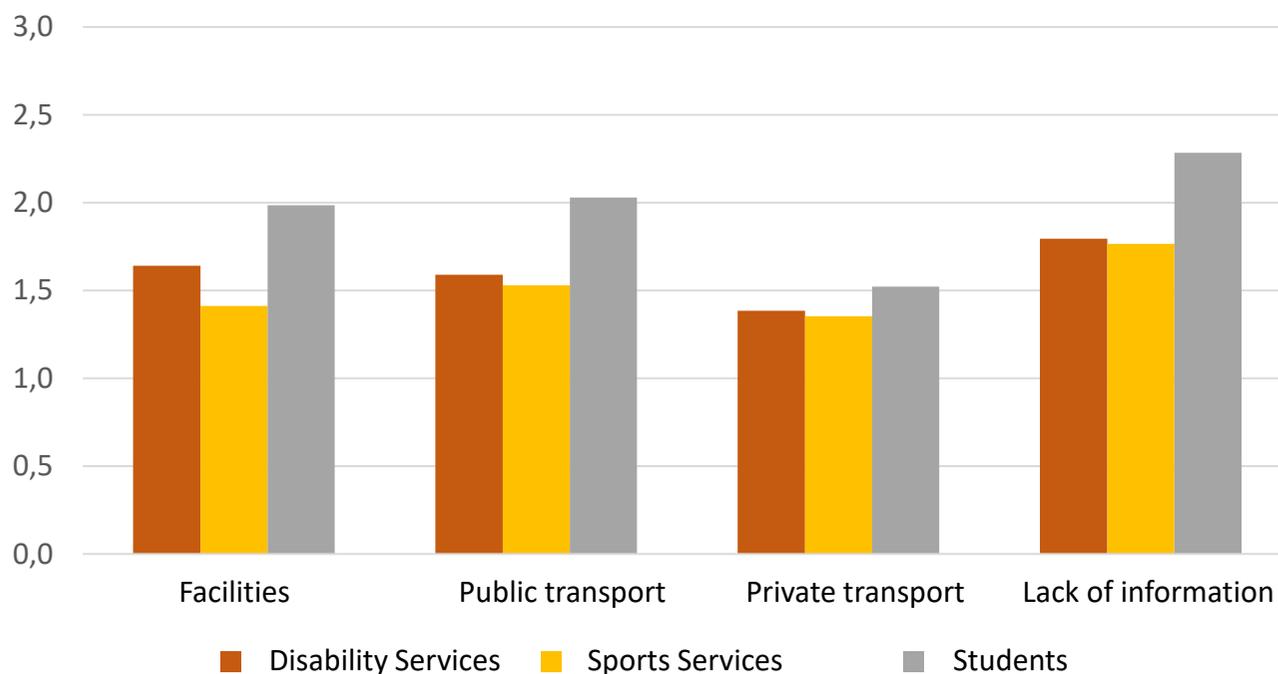


Figure 17. Ratings given for the perception of accessibility barriers.



...we don't do it because we are overwhelmed.

"What do you need?, what is it that you like? Let's see what we can do," and that's it.

There is still a lot of background work to be done.

"go to sports services and find out"

"do you practice any sports or do you need any specific means or method to practice that sport?"

It's not completely accessible and there aren't more specific groups.

...within the university policies, **all offerings should be inclusive.**

We are like the reference for disability...

We put out our sports programming and do not know first hand if there are students with disabilities...

offer our resources and our facilities and they bring they bring their instructors, their groups, etc.

...if it prevents normal progress, it would be necessary to see if some kind of adaptation was possible...

...project that we still have in mind, sports and us...

No, no. because here they focus more on their studies...

Maybe there is a lack of publicity so that the kids find out they can participate...

As far as if the activities are inclusive, truthfully I would say no.

...they call and say, what do we do?

There are times that they don't contact us because they don't need anything...

What the sports system should do is normalize itself. And get organized because it's not very organized...

...sometimes people are in normalized processes and want to go unnoticed...

...sometimes we do not know where the limit is.

SPORTS SERVICES

DISABILITY SUPPORT SERVICES



I hope that the day will come when it will not be strange to see a player with visual impairment playing soccer with peers with sight.

I think that what happens is that there are very sports that are then done in the Spanish championship or in the CADU.

Well, they have the same right as any other person. It sounds a little bad, but just because I'm blind doesn't mean that I'm stupid.

People with disabilities, for certain reasons, do not do many sports. And a university student could practice any sport like any other person.

...it's more fear of the organization of not knowing how to deal with it or fear of what might happen.

Well, that might be their thing. Because since we are all about inclusion and all of that should have it.

For me, yes, although I have not participated because there aren't any. But yes on a national and international level.

I play for enjoyment with my friends and to have a good time.

...people with disabilities should not feel left out in this regard.

That is an amazing step toward integration...

...so we show that we don't have handicaps, we include ourselves more in society, and we show that we are not misfits.

It was time and and it was time to make it more visible.



STUDENTS WITH DISABILITIES

4.2. Barriers and Facilitators

4.2.2. BARRIERS AND FACILITATORS DRAWN FROM CONTENT ANALYSIS FROM FACE-TO-FACE INTERVIEWS

Since the general results about the perception of contextual factors (environmental and personal) that could restrict participation in physical and sports activities have been explained, next we will proceed to analyze the content of the interviews conducted with the groups of interest, identifying the **Barriers** and **Facilitators** that underlie the topic of study that concerns us. Table 4 lists these barriers and facilitating factors, classifying them according to two criteria:

- a) Matching the barrier with its opposite facilitating factor or closest match. This will allow us, throughout the following sections, to identify the problem and then outline potential solutions, which at the end of this report will be translated into conclusions and strategic actions.
- b) Ordering the exposure from access to information (pre-activity), access to the physical or sports activity itself, and continuing with other factors intrinsic to the development of practice and persistence within it.

Table 4. Barriers and facilitating factors extracted from the content analysis of the face-to-face interviews.

| | Barriers | Facilitators |
|-------------|---|---|
| Information | 1) Lack of offerings Lack of students with disabilities | 1) Good sports offerings |
| Access | 2) Lack of Sports Services initiative 3) Poor dissemination and visibility 4) Stereotypes and negative attitudes 5) Poor communication among Services 6) Lack of action protocols Lack of guaranteed sports practice | 2) Willingness from staff 3) Good dissemination of information 4) Awareness and positive attitudes 5) Communication between Services 6) Initial interview related to sports |
| Practice | 7) Deficiencies in the training of professionals 8) Poor accessibility to sports facilities 9) Lack of resources 10) Lack of support | 7) Training and qualification of professionals 8) Accessible facilities 9) Availability of specific resources 10) Volunteering |
| Persistence | 11) Lack of agreements 12) Lack of encouragement measures 13) Lack of consistency for SWD Lack of time | 11) Collaboration with Entities 12) Incentives Sports scholarships Fee exemption |

It should be noted that at the end of each section on barriers and facilitators, a series of first person testimonials will be presented that will illustrate the content covered for the reader. And in the last section (4.2.14), we will present a summary of all these factors in comparison with a review of the literature created in this regard in order to distinguish between those of a personal nature and those of an environmental nature.

4.2.2.1. Offerings and Demand

OFFERINGS/DEMAND FOR PHYSICAL ACTIVITIES FOR/OFF UNIVERSITY STUDENTS WITH DISABILITIES



When asking Disability Support Services and Physical Activity and Sports Services about the expertise / offering of activity and/or sports programs for SWD at their universities (Figure 18), we found that less than 20% of the universities interviewed claimed to have activities of this nature. In addition, we observed that 71.8% of Disability Support Services affirm that they do not have demand or requests for information on physical or sports activity that responds to the needs of the student body, in the same way as the demand that exists for other facets of university life (e.g., scholarships, curricular adaptations, etc.). However, it is encouraging to note that 58.8% of Sports Services interviewed affirm that for 2015/2016 or 2016/2017 academic years, at least one person with a disability participated in one of their activities offered.

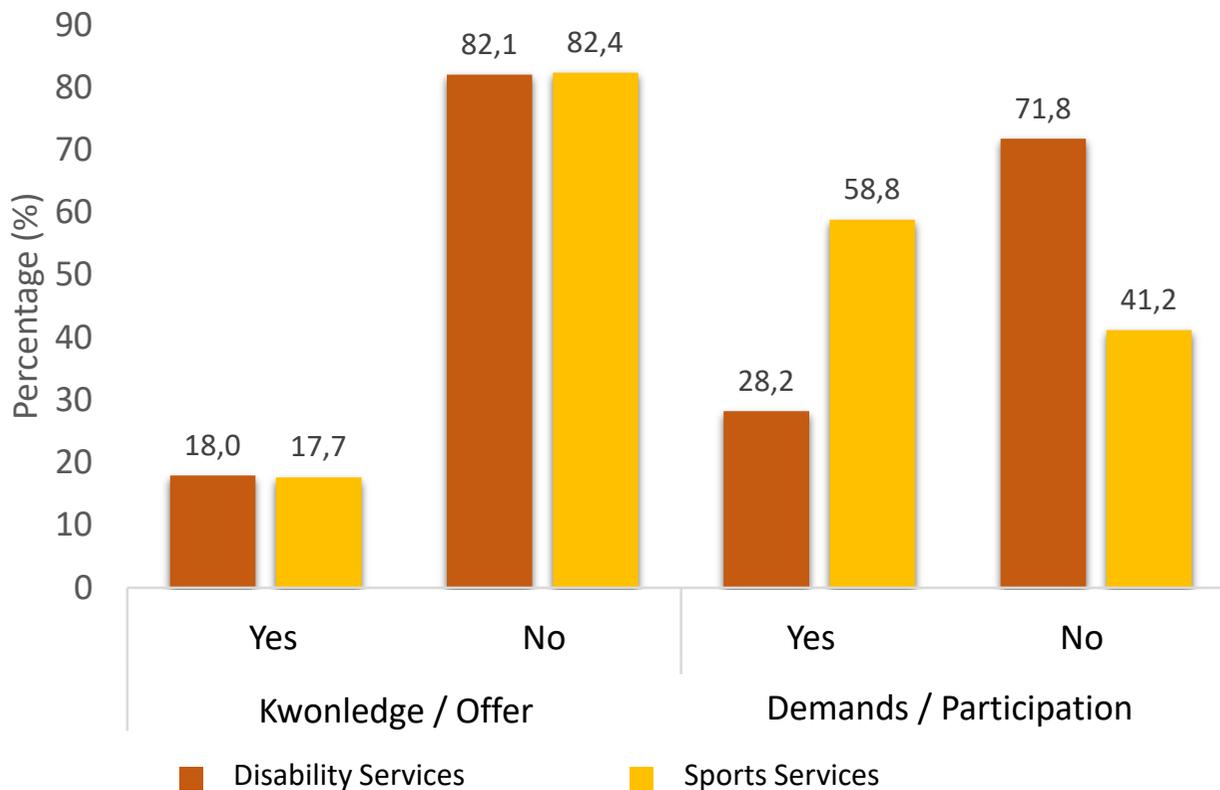


Figure 18. Expertise, offerings, demand and participation for physical and sports activities for students with disabilities.



The fact that there is a greater response for participation (58.8%) than for offerings (17.7%) may be due to participation in inclusive activities or activities that do not require significant modifications (adaptations) to be performed.

4.2.1.1. Offerings and Demand

When we asked Disability Support Services about whether they received requests and/or demands for physical activities and sports, the content analysis reveals that information is often channeled through **collaborations with entities outside** of the University (barrier/facilitating factor that we will specifically address later). Some examples are found with Bilbao Kirolak or Bidaidea at the University of Deusto, CAI Adapted Sports in Zaragoza, or even the contracting of external services at the University of Extremadura. We also found that these Services **report specific or inclusive activities** at their universities, such as goalball, boccia, and adapted scuba diving (University of Alicante), Baskin (assigning different roles in the game of basketball according to the functioning of the skills of the players) (University of Barcelona), skiing and canoeing (University of León), adapted swimming (University of Córdoba), adapted Archery and Valencian Pilota (University of Valencia). Along this line, several universities are exploring new activities to offer (adapted surfing at the University of Cádiz), or they are simply **analyzing the offering** to be made according to the demand. This offering is confirmed by the Physical Activity and Sports Services, although other activities are listed, such as sailing (University of Cádiz), and three racquet sports including tennis, paddle, and table tennis (University of Valencia).



4.2.1.1. Offerings and Demand

Some Universities highlight the need to include the offering of activities on their webpages and usual means of communication, although other already have it included (e.g. the Technical University of Valencia and the University of Valencia). In any case, we begin to get a glimpse of the importance of a “cross-disciplinary” offer with “therapeutic incentive” and the detection of “interest in doing physical activities or not, and if they need guidance or not do so.” On the other hand, some of the most outstanding barriers derive from notes such as “students with disabilities come with their sports and don’t come to the university to practice it,” that “surely our entire offering could not be adapted to all types of disabilities” or that “some students ignore sports services or are not in contact with them,” aspects that we will delve into in upcoming pages.

Next, we will outline the main offering of physical and sports activities for the participating Universities:



Track



Directed Activities



Indoor Activities



Badminton



Basketball



Handball



BMX / Triathlon



Scuba Diving



Racquet Sports
(Padel, Squash, Tennis)



Water Sports
(Sailing, Surfing)



Fencing



Soccer / Indoor
Soccer



Goalball



Golf



Horseback Riding



Swimming



Skating



Pelota



Rugby



Hiking / Trail /
Climbing / Guiding



Taekwondo / Karate



Table Tennis



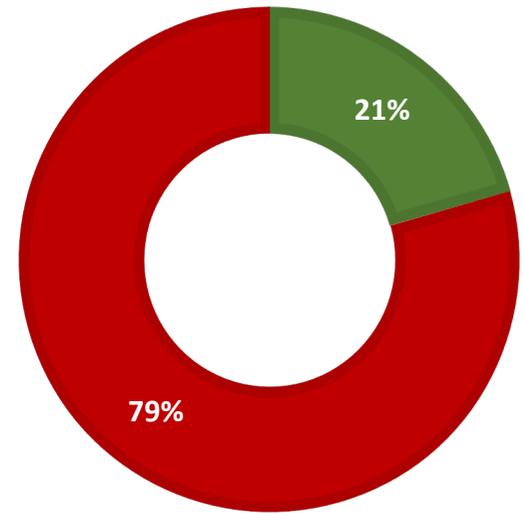
Archery



Volleyball / Beach
Volleyball

4.2.1.1. Offerings and Demand

Although much of this sports offering derives from the university competition organization through the Rector's Trophies, the Regional University Sports Championships (CADU), and the Spanish University Championships (CEU), when asking Sports Services if at their Universities students with disabilities participated in the CADU/CEU, only 20.6% affirmed this. In this regard, the students with disabilities interviewed expressed their desire to participate in various activities or sports such as (in order of importance or frequency of response): Swimming, Soccer, Volleyball, Track, Goalball, Basketball (including Wheelchair Basketball), Duathlon/Triathlon, Valencian Pilota, Archery, Dance, Tennis, Wrestling/Judo, and Boccia.



■ Yes ■ No

*"But I would like them to offer more teams of different sports. Although it doesn't seem like it, there are few soccer teams, only the rector's trophy championship. And **I would like them to offer a team and train every week there.**"*

Figure 19. Universities with students with disabilities participating in competitive university sports.

Nevertheless, many of these activities could have a recreational and/or health focus, in line with the most practiced physical and sports activities for the group of interest, making the context for application of university sports broader and more flexible:



*I believe that our conception of sports is designed to **improve** peoples' **health and quality of life** and also for the **acquisition of values** that are acquired through sport, such as solidarity, teamwork, and more.*



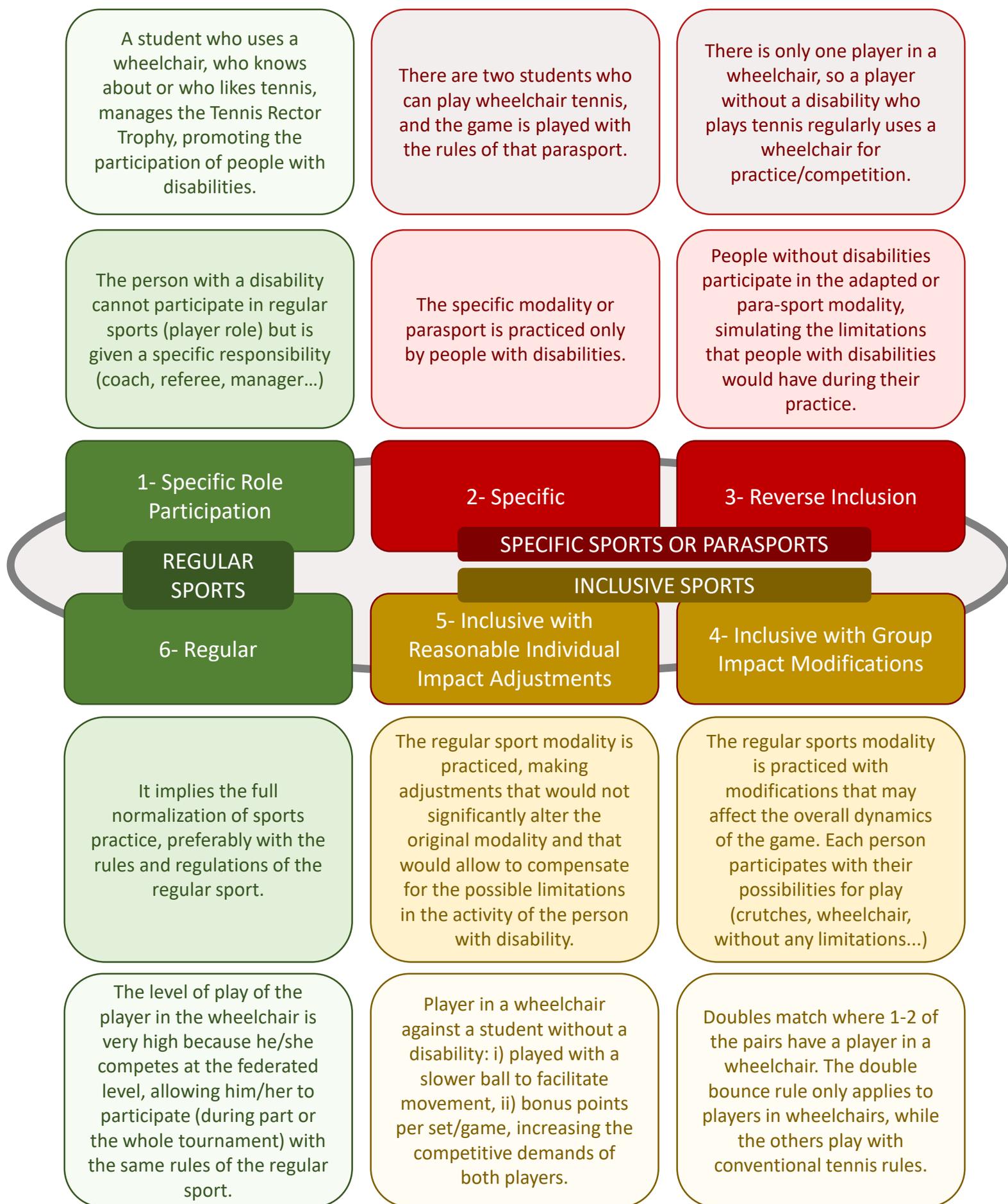
4.2.1.1. Offerings and Demand

Therefore, we find different **models of university sports**, where there is more attention to competitive sport (at its different levels), or physical and/or sports activity are promoted for recreational and leisure purposes, or a balance between both. In addition, we find another duality when facing what many of the interviewees have called **specific or adapted sports** (only practiced by people with disabilities) versus **inclusive sports**. It is possible that these dichotomous models can influence the **lack of demand** for sports practice by students with disabilities according to some of the testimonials collected from the Students themselves:



Based on Reina’s (2014b) proposal, where a continuum of five sports practice formats is proposed, from specific (only people with disabilities) to inclusive, next we will make a modification of this proposal, where the continuum ceases to be linear and becomes circular, and in which the SWD can participate according to their interests and the offering available at their University. To better understand the proposal, we will pair each phase with an illustrative example, in this case for the practice of wheelchair tennis.

4.2.1.1. Offerings and Demand



4.2.1.1. Offerings and Demand

For the application of any of the practice formats (i.e., tennis practiced by a wheelchair user) that we presented on the previous page, it should be noted that the reasonable adaptations/modifications/adjustments to be made will depend on the practice format itself and the limitations in activity (i.e., movement, changes of direction, perception and tracking of the ball, stability, hitting techniques, coordination, etc.) presented by the people with disabilities. Below we present those dimensions of adaptation that according to Reina and Sanz (2012) can be adapted for the practice of physical and sports activity (i.e., applied to tennis for different groups with disabilities):



4.2.1.1. Offerings and Demand

Even considering these offering options, the content analysis from the face-to-face interviews shows a series of reasons to be taken into account in this regard:

1. Difficulties to mobilize students with disabilities to start some specific activities.



"...it's complicated to make a wheelchair basketball CADU. Because if it's already hard to find people outside of the university, imagine within it..."

2. Lack of agreement and/or disparity of interests to launch specific activities.



"This idea of offering adapted activities has been around for a while. We were doing a careful study with students with disabilities precisely to start an adapted sports program. Everyone recognized the importance of adapted sports and wanted everything to be adapted but then no one wanted to play sports. We let the whole community with disabilities choose what type of sports they wanted, adapted instructors, and in the end there were 3 or 4 who then wanted different sports, so ultimately we ended up not doing anything."

3. Disinterest in the sports activity in the university context, with more interest in other external activities (clubs, federations, associations...)



"No, although someone asked us about the sports federation. But we usually don't demand anything about participating in university sports activities."

4. Lack of identification of a specific activity or the community of students with disabilities themselves, being participants in activities of an inclusive nature.



"Right now there is not much demand from the university community with disabilities; they usually just participate in the events we organized. What happens is that many times we are not aware that they participate in physical activity every day, then you go to the gym and see them but they don't identify themselves like that."

In the next sub-sections, we will analyze in more depth other barriers and facilitating factors that may be related to offerings and demand, such as the availability and transmission of information, the qualifications or competencies of sports specialists, the available supports, among others.

4.2.1.1. Offerings and Demand

We will conclude this section by showcasing some content excerpts from the three groups from the study, which reflect the perception of barriers or facilitating factors.



"At our university there is **no offering** of specific sports programs."



"There were only 3 of our students who participated in adapted swimming for the Spanish university championships. They were also included in the category of **high performance athletes**. But **we don't have any requests**. We don't have demand. It's true that **demand is generated**. But it is true that if there were a **policy** on our part **for incentivizing this type of participation**, there would be demand, but there is not right now."



"**We don't have adapted sports**, I say this because **it would be difficult to adapt** here for people with these difficulties. I think it would be more appropriate, **although it's not in the inclusion policy**, to create **specific activities for them**. Because from the beginning it would be very **complicated**, but if it went well it could be launched in turn as an inclusive activity so that everyone could do it."

"There is little information on sports. Not much publicity. Apart from the rector, I would have liked for there to be **more sports events or day-to-day activities**." ... "Because of course, doing individual adapted sports is **basically swimming and not much more**, like the weight room. But few people practice adapted sports here."



"...at the school of education we have a **project** that they started called 'Baskin' as a specific sport which is a type of basketball where each player has a role that is a number. This role depends on each person's abilities, for example, a person who has participated in the Paralympics will have a much more important role than I would as a person who does not usually perform physical activity. But on our teams, students with disabilities **participate** in the usual offering that the UB has."



"Yes, all of our **activities** are **inclusive**. You have to think that this university has 45,000 students, 4,500 professors, etc. Here there is taekwondo, yoga, ta-chi, muscle workshops, etc. as well as soccer, indoor soccer, basketball, etc. Then we inform the young people that there is a wide variety of sports and if they would like it or have done it, or if they would like to play sports, because sports help them a bit to fit in and get to know other young people and it helps you to more autonomous."



"...last year there was a **Spanish university championship** for people with disabilities. The other option is within the CADU where **inclusive goalball** has been proposed during the previous two years between the universities of Valencia, Alicante, and Elche."



"...they offer any sport done in the gym, archery, Valencian pilota, swimming... they have a good offering, yes. I thought that a polytechnic university, that doesn't offer any degrees in physical activity, would not have as much of an offering and I was **pleasantly surprised**."

4.2.2.2. Sports Services Initiative

SPORTS SERVICES INITIATIVE

Lack of Initiative

Willingness from Staff

The Royal Decree 1791/2010, from December 30, which approves the **Statute on University Students**, in its **Article 62 on physical and sports activity for students**, stipulates in its 5th point that “universities will promote physical activity and sports programs for students with disabilities, facilitating the means and adapting the facilities that correspond in each case.” Given that it is the Physical Activity and Sports Services who have competence in this regard, their work is vital for the fulfillment of this postulate.

In this sense, the **lack of initiatives/offerings** for SWD at Universities can be noted as one of the reasons for these practice rates, to which potential lack of interest on the part of the student body could be added, as we saw in the previous point. When asking students if they were familiar with the Physical Activity and Sports Services at their Universities, we found that 59.7% said they were and that 49.3% considered that their University was prepared to give an adequate response for this matter, meeting their individual needs.

There can be many reasons underlying this theoretical lack of initiative, some of the clearly identified as negative contextual factors (barriers) or positive (facilitators).

1. Workload for Sports Services
2. University policy on physical activity and sports
3. Organizational or management dependence
4. Availability of staff, facilities, or adapted materials
5. Knowledge of the needs of SWD
6. Knowledge of the actual offering and/or adaptations for the practice of physical activity and sports for people with disabilities
7. Interest of the University Community in physical activity and sports
8. Genuine interest from the management of the Physical Activity and/or Sports Service(s) to promote and encourage practice from SWD
9. Diversity of the SWD group

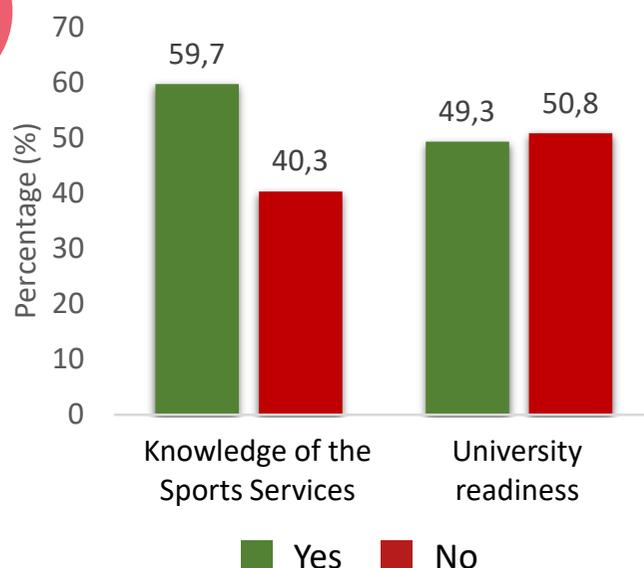


Figure 21. Expertise of Sports Services and consideration of preparedness to respond to needs of demands of physical activity and sports for students with disabilities.

4.2.2.2. Sports Services Initiative



“...relating to the topic of coaches, it is a very good group that keeps an eye out for you, etc. But as for the management of the sports service, that could be **improved**. For example, when talking with them, for them to motivate you stay there. Because I had a classmate who told me that he was doing taekwondo and he went to speak with the university in order to represent them, and from Sports Services they said he had to be the **Spanish champion in order to represent them**, and it’s not for nothing, but we are talking about a university competition. **You always get butts.**”



“A tremendous lack of interest from the sports service management: **either you are the best or you’re nothing.**”

“I think that to integrate much more into the university, sports services would have to consider having a **greater participation in this.**”



“In the initial interview, we do ask the student, ‘**do you do sports or do you have a habit of doing sports or are you interested?**’ and I have asked them sometimes if they want to make a group among themselves to play sports but I have always received negatives. In the sessions that we do for the university, we also address sports with supports and awareness activities or conferences such as DIXIT.”



“I found out when I started at the university. Because they made a guidebook for the first days for the Tarongers Campus, because I went there and directly asked. If there was some kind of service or something and they sent me to MAT and then from there was the first moment of **direct contact.**”



4.2.2.3. Dissemination and Visibility

DISSEMINATION AND VISIBILITY OF PHYSICAL ACTIVITY AND SPORTS FOR STUDENTS WITH DISABILITIES



Access to information is a fundamental element for there to be demand or use of the services offered by Universities in terms of physical and sports activities. Figure 22 shows that Disability Support Services make greater use of the different means available to inform the group of interest due to direct access to contact information. The media most frequently used are Awareness Sessions, followed by direct emailing, information on web pages, informational brochures and promotional videos, many of these disseminated through social media networks (other).

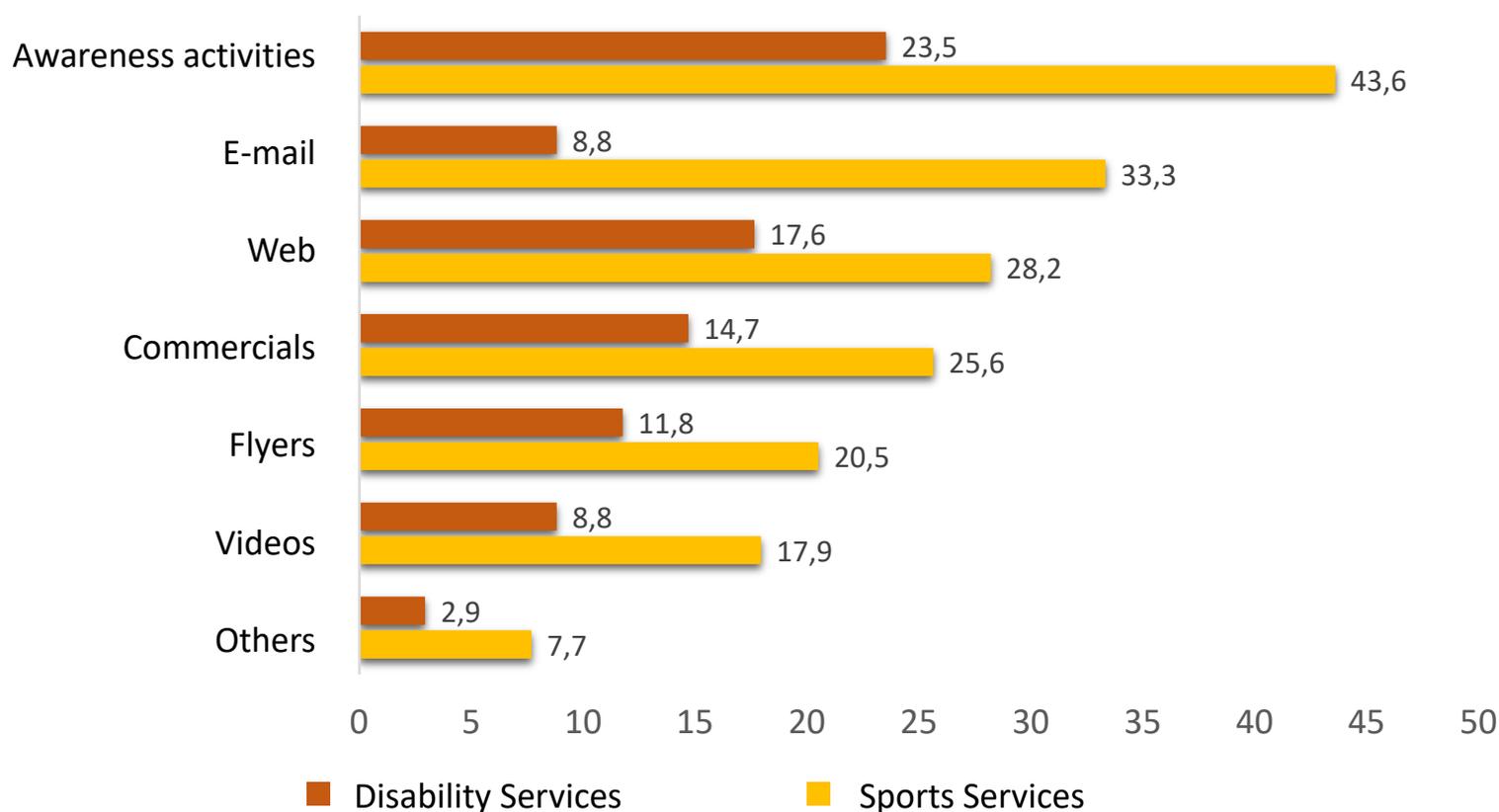


Figure 22. Main means of disseminating information used by Disability Support Services and Physical Activity and Sports Services.

The qualitative analysis of the three groups of interest has allowed us to obtain information about the different methods and formats of information for the recruitment of students with disabilities, based on **Sessions, Printed and Digital Information, Social Media Networks, and Personalized Information**. Next, the main means to be used for these groups, although the Sessions will be addressed in more detail in section 4.2.2.4.

4.2.2.3. Dissemination and Visibility



Printed



Campaigns

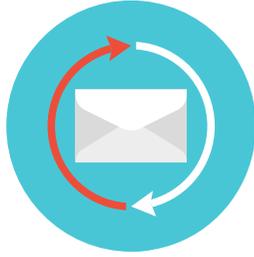


Posters and Brochures

Digital



Web / Blog



Email



Social Media Networks

Personalized



Upon Enrollment



Initial Interview



Word of Mouth



Support by Phone or In Person

Sessions

- Welcome
- Open House
- Awareness
- Talks / Discussions
- Workshops / Courses
- Student Delegation
- International Day of Disability

Contact

- Educational Facilities
- Schools
- Sports Federations
- Associations
- Inclusive Campuses
- Camps
- Festivals

4.2.2.3. Dissemination and Visibility

Regarding **Print Information**, the most used resources are **Posters** and **Informational Brochures**, although sometimes these could be an insufficient resource for attracting SWD to the practice of physical activity and sports. Occasionally, specific **Campaigns** to promote physical activity and sports for the entire university community have also been noted, for which the involvement of University Communication Departments or Services is recommended (Radio, TV, Newsletter, etc.). These Campaigns should be oriented not only to the information about the activities or actions to be completed, but also should inform of the benefits and/or incentives of their practice.



*"Because **just a poster is sometimes insufficient**, but if you approach the activity it might make an impression on them and they might end up doing that activity."*



*"Well, I follow them on social media networks and since the practices are done at the UHU sports center there are always **posters with everything they offer** and so on."*

*"I would like for a little more **recruitment campaign** to be offered. Like going all out for the community with disabilities. Because I believe that it is complicated for the majority of students to practice sports if they have their academic goals set, so we would have to motivate them a little bit to practice."*

"It's easy (access to information), but I would change the dissemination. For example, I think there should be more posters like other universities have like..."

Digital media appear as a quick access resource for and by the SWD. In addition to the static information on **webpages** and/or **blogs** from Physical Activity and Sports Services, **Social Media Networks** (e.g., Facebook, Twitter, Instagram, YouTube...) emerge as a dissemination mechanism for the activity of concern to us, both for access (e.g., recruitment of team members), development (e.g., information about the activity, clinics) as well as the dissemination of results (e.g., competition results). However, one of the limitations attributed to Social Media Networks is the availability of a person in charge, or community manager, in addition to have an integrated policy with the general social media networks for the university (e.g., communication offices) or Disability Support Services themselves. The last informational channel reported in this group is specific **email**, which is able to filtered by schools, areas of knowledge, educational level, or disability groups, among others. Nevertheless, one of the limitations reported for this method is the Personal Data Protection Law, which makes pre-screening and/or a communication policy and sending of information on that subject necessary; in addition to the initial lack of interest in receiving a lot of information in this way (e.g. offers for scholarships, internships, affirmative action measures...).



*"I would use **social media networks**. Facebook, Twitter, etc. to pass along information and post **announcements**. I think it is a group that is quite hooked on social media networks, especially those with some type of physical disability. And from there, **spread the word** and ensure that they can practice normalized physical activity at the university."*

4.2.2.3. Dissemination and Visibility



"They send us **emails** with the activities they offer and you just go up and get informed about the program and you'll see that there are many activities."

"...through the **website** and then there is a brochure that informs you of the advantages that students in sports have, and that we should take make the most of it..."

"...although I would send **more emails** or **talk personally** with students so they would find out better. Because **we've only seen posters** for the tournaments, but not for the rest."

Personalized information appears to be the most effective channel when it comes to offering physical and sports activities to university students with disabilities since it allows for appropriate adjustments between the offerings and the potential demand. Among the most used measures are:

- a) Including information on the sports offerings in **registration** envelopes or apps.



"And then some **box on the registration form** can be marked 'I play sports' and from there to have a database to be able to contact them."

"...because our experience is that they do not read emails. Maybe for good dissemination we could include a **box on the registration form** that says 'are you interested in practicing some type of sport or physical activity at the university?'"

- b) Asking during the **initial interview** or first contact with Disability Support Services if there is interest in practicing physical and sports activity. This resource would greatly help to establish communication channels between these Services and those from Physical Activity and Sports, so that they could be guided about the interests and needs of SWD.



"I suppose doing a little more dissemination, although at a more personal level. At the time of the **personal interview**, inform them that there is also a sports service and the activities that it offers, if they are adapted or not, etc. People who participate would also be ideal to spread the word and make them see that it can be interesting and that it can open new horizons and improve health."

- c) "**Word of Mouth**" among peers and/or Services specialists is a very useful tool, although it may lack greater systemization and control of its impact or follow-up. Some students with disabilities revealed that they have known about the offering at their universities due the information from more "veteran" peers.



"...once inside the framework of the university, it is very easy to find out about everything, especially by **word of mouth**."

4.2.2.3. Dissemination and Visibility

- d) Given the representation of SWD with respect to the total number of students at Universities (1.7% according to the Third Study on Universities and Disabilities from the Universia Foundation, 2016), or the interest they could have in practicing physical and sports activity, **in-person support or support by phone** from specialists from Physical Activity and Sports Services would be the fourth strategy or resource in this regard, but which immediately requires the initiative and interest of the SWD themselves.



*"As soon as I enrolled, they asked me if I played sports or if I knew the types of sports there were, and I said yes. Because **I also already came before with goalball with ONCE** so I asked if there was goalball here and they told me yes, so then I said I would sign up right away, and that was it."*



"...another thing is that they read them (emails), because they get so much information that many times they don't even open it, so that's why when there is genuine interest, they pick up the phone and call."

In any of these information formats, any doubt or suspicion regarding the request or transmission of information should be avoided, derived from the lack of knowledge that may exist on both sides, or the stigmatization that sometimes accompanies people with disabilities, an aspect that we will address in the next barrier/facilitating factor pair.



"... the information is sent from a sender who is not disabled and the receiver is, so the channel will have to be negotiated or calibrated because sometimes misunderstandings occur."

And as far as the **Sessions**, we find different options, with a double purpose: a) guaranteeing immediate access to information, with the possibility of practicing physical or sports activity with other members of the university community, or b) stimulating the initiative to participate in activities that involve contact with people with disabilities, generally athletes. Following the framework of identified barriers and facilitating factors, we will address this information and contact strategy in the next section.

We conclude this section by noting a series of content evidence that supports the findings regarding barriers and facilitating factors with respect to the dissemination of and access to information on physical and sports activity for university students with disabilities.

*"I don't know if they offer anything I could do. **They never contact the athletes**, nor do they ask. There are championships that I could have gone to, but they didn't tell me anything."....."**I haven't seen anything.**"*

*"It would be good if the university offered something on their website in the sports section like an inclusive sports section. Because there are many varieties and it would be really great for the university community that has some type of disability. **That way they would have it more in mind that there are more and more of us at the university.**"*



4.2.2.3. Dissemination and Visibility



"Sports Services **doesn't make themselves known and also doesn't promote their offerings**. There is a lot of **ignorance** that people with disabilities can only practice specific sports such as boccia, slalom... They also do few talks on adapted and inclusive sports."



"They **advertise a lot** by means of sessions, free weeks, messages through the mail, etc."



"A good idea would be to bring up the issue of sports at the initial interview. I, for example, always **recommend** the topic of physical activity for people who have **mental health** problems because it seems very important to me. I do that at the individual level if I believe that it would be good for someone."



"And then from our website create a **direct link to sports services**, just like we have for scholarships, employability, etc. Have them go directly to sports services where it would also be advisable to guarantee accessibility and to make sure that the activity could be performed."



"First they gave a talk to publicize all the services that the university has and that there is a **university sports section**. I also follow them on Twitter and Facebook, and they are quite active: UNICO sport. And when we started to compete for the rector's trophy that is the first competition here in Córdoba that goes by schools. I would compete with the polytechnic, veterinary, etc. Then there is the Andalusian championship but there isn't any for swimming (CAU-CADU). Since there wasn't any championship for Andalusia, I went directly to nationals and from there to international."



4.2.2.4. Stereotypes and Awareness

STEREOTYPES, ATTITUDES, AND AWARENESS RELATING TO UNIVERSITY STUDENTS WITH DISABILITIES



Attitudes towards people with disabilities in the context of physical activity and sports have been the subject of recurrent study in scientific literature (see Armstrong et al., 2017, for a review). However, many of the works completed in this regard have been applied to physical education students, that is, in the context of Primary or Secondary Education. Attitudes are not the main object of this study. But these appear as the underlying reason for the stereotypes attributed to the sports practice for SWD, and that many of the Awareness Sessions and Actions are aimed at improving attitudes toward people with disabilities and/or increasing knowledge about the needs of the group of concern to us.

An **attitude** can be understood as an “idea with an emotional charge that predisposes a set of actions in light of a certain type of social situations” (Sherrill, 2009), which in our case are none other than access and participation for university students with disabilities for physical and sports activities. A systematic review by Lindsay and Edwards (2013) concluded that the most effective strategies for increasing knowledge about people with disabilities and improving attitudes towards this group are:

- 1) **Information** about the group and their needs.
- 2) **Simulation** Activities (e.g., sitting and moving in a wheelchair, wearing a blindfold to deprive the use of vision, etc.)
- 3) Use of **Multimedia** resources (e.g., videos that show the performance and capabilities of athletes with disabilities)
- 4) **Curricular** Interventions where content on physical activities and/or sports practiced by people with disabilities is included.
- 5) **Contact** with people with disabilities.

Linking with the strategies for dissemination and visibility of the offering of physical and sports activities for SWD, **Sessions** become a leading strategy for this undertaking. Figure 22 shows that 43.6% of Disability Support Services and 23.5% of Physical Activity and Sports Services for participating Universities use these as a dissemination method for their activities and services. In addition, Figure 23 shows that 61.5% of Disability Support Services have collaborated “at some time” in the dissemination or organization of awareness actions for the subject of concern to us. However, collaboration between both Services is key for progress in this area, as we will see in the sections that follow.

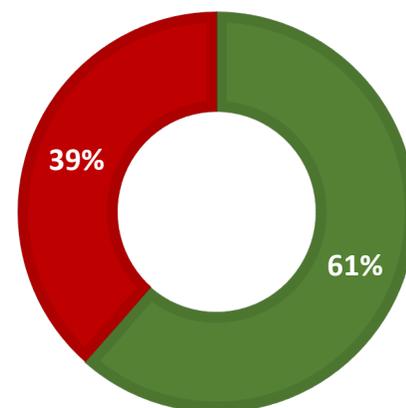
4.2.2.4. Stereotypes and Awareness

Among the Sessions most frequently held, we find:

1. **Welcome** Sessions with actions for academic information and university services as well as coexistence actions.



*"I think that it could be encouraged in class, in fact, that's done here. There is a **welcome talk** where everyone is informed of all the services that the university has. It wouldn't be because of lack of information, because we put posters all over the place, etc. At the beginning of the registration process, they could also be asked and encouraged to be active in proposing physical and sports activities."*



■ Yes ■ No

Figure 23. Disability Support Services that have collaborated in dissemination and awareness activities.

2. **Open House** Sessions where the university opens itself to the surrounding environment, offering its spaces, facilities, and resources to the community. Some of the actions carried out in this regard are visits from school groups, both from Primary and Secondary Education, where activities related to physical activity and sports for people with disabilities can be conducted.



"... 'get closer to the UB' or 'the UB gets closer with schools' so that students begin to see the university world. Then we could do something like this with sports with university students, for example, 'hey, you're from the UB, come with us and we invite you to watch this game' for the sports that can be practiced here, many don't even consider that they could do university level sports, so it would necessary to put together activities of this type."

3. **Awareness** Sessions, many of them done in collaboration with the association movement or entities representing disability groups. This type of activities can be of great interest for attracting potential users and users of physical activity and sports services.

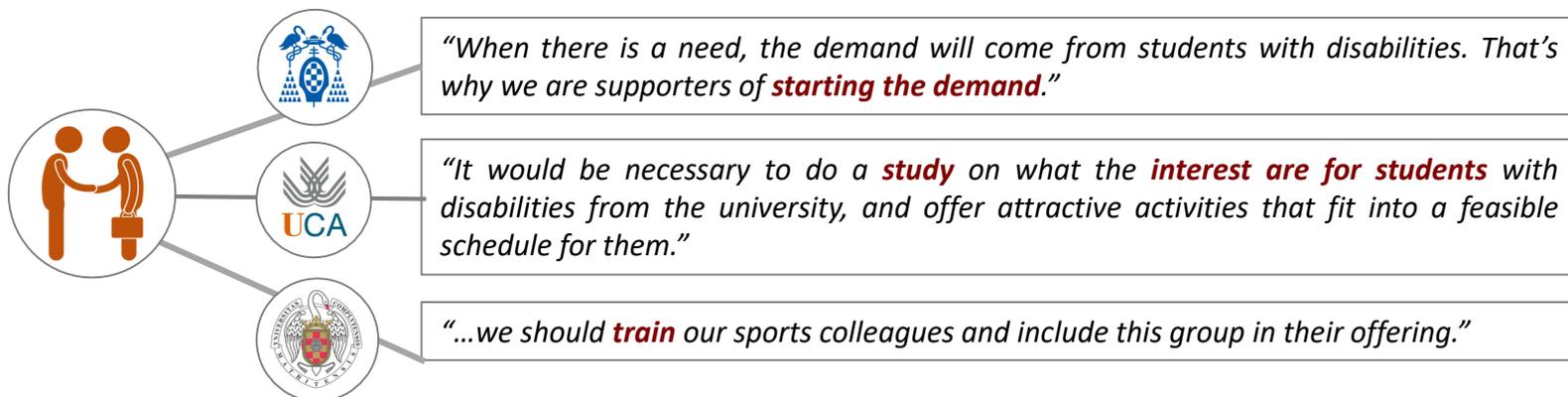
4. Conducting **Talks and/or Discussions** by people with disabilities, preferably athletes, are a strategy to publicize the benefits and values of sports, allowing contact with reality that could seem distant from the first instance. Some programs in this sense are *Never Give Up* or *Paralympic Trainers*, both with collaboration from the ONCE Foundation.



*"The masterclasses that they have done on Paralympics also help a lot because they are experts in the subject and they say, '**I'm here and I'm doing it, why aren't you?**' so what I think we should do is **visibility**, since the regulations, legislation, and the rest is already done. Many times you read it and it doesn't make you feel it, so the best example is an example."*

4.2.2.4. Stereotypes and Awareness

5. Holding **Workshops** or **Training Courses** (for specialists) or initiation/contact (for SWD) is another strategy that may be of interest where there is a previous study for potential demand, which may be the start of further activity that is more consistent or stable.



Any of the actions described above, apart from the Services that are the subject of this study, could have participation from the Universities’ **Student Delegations**, thus giving voice to the students themselves for their interests, as well as highlighting them on dates or commemorations where sports activities have their place (e.g., **International Day of Disability**, December 3).

For a second time, with the intention of guaranteeing contact with and/or practice of physical or sports activities of potential interest for SWD, we present below a series of possibilities for this purpose:

1. In addition to Open House Sessions for Educational Facilities for the community near the University, during the **Visits to the Facilities** to spread the word about the academic offerings of the University, information could be included regarding certain services such as physical activity and sports so that the adapted or inclusive offerings for people with disabilities could be an attraction for future students.
2. The realization of activities or programs at specific **Schools** (e.g., the Baskin program at the School of Education at the University of Barcelona, or the Day of Sports Without Adjectives from the University of Alicante and Miguel Hernández of Elche) contribute to the promotion of inclusive sports activities among the university community. Involving other participants (e.g., Disability Support Services and Physical Activity and Sports Services) would help to promote such activities and perhaps to identify potential seekers of sports activity (e.g., direct practice or word of mouth).
3. Articulate an offering of activities in collaboration with **Sports Federations and/or Associations** with competitions and/or resources for people with disabilities. This type of collaboration could help to lead to certain specific activities for SWD in the case that the university could not undertake them.

4.2.2.4. Stereotypes and Awareness



*“Also participate with **federations and associations** that develop projects and programs of this type **that we can then implement here.**”*

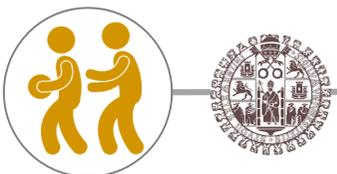
*“Right now a good tool would be an **association**, not necessarily specific if not inclusive, where these physical activity-sports needs could be centralized and proposed.”*

4. The “**Inclusive Campuses, Campuses Without Limits**”, promoted jointly by the ONCE Foundation, the Repsol Foundation, and the Ministry of Education, Culture and Sports allow future university students with disabilities to experience and find out about the university experience first hand on weeklong stays at different university campuses. During these Campuses, activities are completed for academic outreach, for learning about the educational offerings of the universities, the services available for SWD, the cultural and leisure offerings, the latter being where physical and sports activities can take on a special role.



“For next year, inclusive campuses are being organized with ONCE, so we are already working on this (sports activities).”

5. In line with the inclusive campuses, other actions to be completed would be specific outings or **Camps**, self-organized or done in collaboration with external entities.



*“...last year we were looking for an adaptation for a student who was blind who wanted to do a **hiking** activity with us. And we worked **in conjunction with the disability support service** to execute the adaptation. After that, what we did was work with an **association** called AVIVA, which also does everything relating to **inclusion** and among others they also have university students. So we do **joint activities** with them.”*

6. Finally, in the group of dissemination activities for science and/or university culture, physical and sports activities can also be accommodated at **Fairs** and/or **Festivals** open to the public.



“UMH has been holding the Science and Technology Fair (FECITELX) for two years, which includes both open house sessions as well as workshops at the Elche Conference Center. From Support for Students with Disabilities and the Sciences of Physical Activity and Sports Degrees, we conducted a workshop called ‘On Wheels’ where we taught the public how to configure different parameters of a wheelchair to improve its mobility and safety: the incline, seat, backrest, cushions, adjust an anti-roll wheel, and the proper use of straps.”

4.2.2.4. Stereotypes and Awareness



“One of the problems with society is falling into the trap of **taking things for granted**. I fell into that trap myself and **assumed that there would be nothing for me** in terms of sports and that type of thing.”

“**Lack of knowledge about** adapted sports **activity** and due to lack of demand or **ignorance** that this type of thing can be **be demanded** or proposed at the university.”



“I think that basically the university should **encourage interest and visibility** for sports and physical activity. This implies economic support, visibility, collaboration with other entities, and the adapted or inclusive practice or offering that we currently do not have.”



“We need to be increasingly **more creative** and go through social media networks because everything happens there. Give high visibility to successes through sessions, having people who have won medals as a **reference...**”



“We do a lot of **awareness** activities. From associations and local clubs, ... to wheelchair circuits, the last ones we did were in a Decathlon store, at the Alicante City Hall, in Elche... We do at least one a year.”



“For the disability day sessions in December we did some **sessions** for students to see the facilities. Especially the weight room that is fully adapted and the instructor is well-informed. And this year also a special activity was adapted indoor soccer, and there was also dissemination for this activity to attract students with reduced mobility and in the future to **create a team** from the UPV to compete... After these sessions, some students end up doing sports with us. And from there we create a channel of **direct communication** with a (sports) services specialist who creates all of the adaptations that are required.”



4.2.2.5. Communication Between Services

COLLABORATION BETWEEN SUPPORT SERVICES FOR STUDENTS WITH DISABILITIES AND SPORTS SERVICES

Poor or No Communication

Adequate Communication

Royal Decree 1791/2019, from December 30, which approves the **Statute on University Students**, in its Article 62 on **physical and sports activity for students** stipulates in its 5th point that “universities will promote physical activity and sports programs for students with disabilities, facilitating the means and adapting the facilities that correspond in each case.” Given that it is the Physical Activity and Sports Services who have competence in this regard, their work is vital for the fulfillment of this postulate.

Coordination between services seems to be a key element in this process, since some Services claim to collaborate in **adaptations** for physical and sports activities for users with disabilities (e.g., Autism Spectrum Disorder), or provide guidelines on accessibility. Even so, there are several reasons that constrain this collaboration:

1. The size of the university and the number of campuses, facilitating/hindering the **fluency of communications** and collaboration actions.



“This is already dreaming, but we would organize our own activity to try to involve them, to bring out the best from both services...”

2. The allocation of **competencies** to each Service, facilitated/hindered by the subsidiary organizational structures or individual entities.



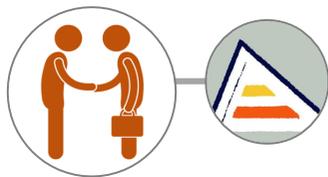
“Either disability support services would send us the information or they would send the students a questionnaire about interests they have in terms of sports.”

3. The existence or non-existence of **action protocols**, especially for the detecting interest/demand, advising, and monitoring of students with disabilities.



“We would like to know if of the 300 students with disabilities how many of them would like to play sports, so maybe it would be best to start working on this from the disability support office.”

4.2.2.5. Communication Between Services



*"In the interview we did at the beginning of the year, we informed students about the existence of sports services and we also told them if they find any problems with sports that they should tell us **in order to solve it**. We promote sports as a force for change that in turn promotes other factors of well-being."*

4. Access to sensitive information and **data** subject to the Data Protection Law.



"To encourage interest, I would just make sure that all of these students are monitored and from there do a campaign. This could only be done with the disability support office, but that's where it clashes with the Data Protection Law."

5. **Institutional policies** on physical activity and sports for all, with conviction for it and the implementation of an inclusive offer.



*"...I think that it has to be within a **university policy** that encourages **physical activity for everyone** and that functional diversity appears."*

*"...it would be necessary to use the word **"inclusive,"** but in the beginning we would do it to make it clear that everyone can participate in all of the activities offered."*

6. Good or not so good **relationships between Services**, either for the purposes of Management (being able to vary depending on the government team and its university policies) or the Services specialists themselves.



"But I think that the disability support office also should have a very important role in this because they don't do anything in this regard. If these two groups were motivated, all these initiatives could be completed since the university environment is an environment that evokes creating anything that you want."

Thus, communication between the Services that deal with Disability first hand and those from Physical Activity and Sports should be the **basis** from which to identify potential users. Just as there are fluid and stable communications in terms of employment or mobility, this facet (i.e., physical activity and sports) of university life should not be an exception. In addition, this communication is of special importance for those students who require a series of special supports or guidelines.

All this, together, to be able to provide the necessary **guarantees** for access to and the practice of physical and sports activities for students with disabilities, must be aligned with the terms and rights set out in the Convention on the Rights of Persons with Disabilities, the LOMLOU, and the University Student Statute.

4.2.2.6. Protocols for Action

PROTOCOLS FOR ACTION RELATING TO PRACTICING PHYSICAL ACTIVITY AND SPORTS

Lack of Protocols

Initial Interview

As a next step in access to and practice of physical and sports activities for SWD, action protocols, closely linked to information and communication between Services, are a determining element to be able, at least, to get closer to understanding the sports offerings of Universities.

Considering the profile of the student body interviewed, with 91% who consider themselves physically active, practicing physical activity/sports, and 56.7% with a percentage of disability equal to or greater than 66%, **Adaptations** emerge as a key tool for their feasibility.

Figure 24 shows that less than 30% (20.9% of students and 28.2% of Disability Support Services) of the interviewees considered that appropriate adaptations for the practice of physical or sports activities were used for SWD.

The **Initial Interview** (that we are talking about as a means to inform about University Services and to understand the students' interests), normally performed by Disability Support Services, is presented as the most appropriate time to make an assessment of the needs of the student upon arrival to the University, being able to cover all the dimensions of university life, not just academics.

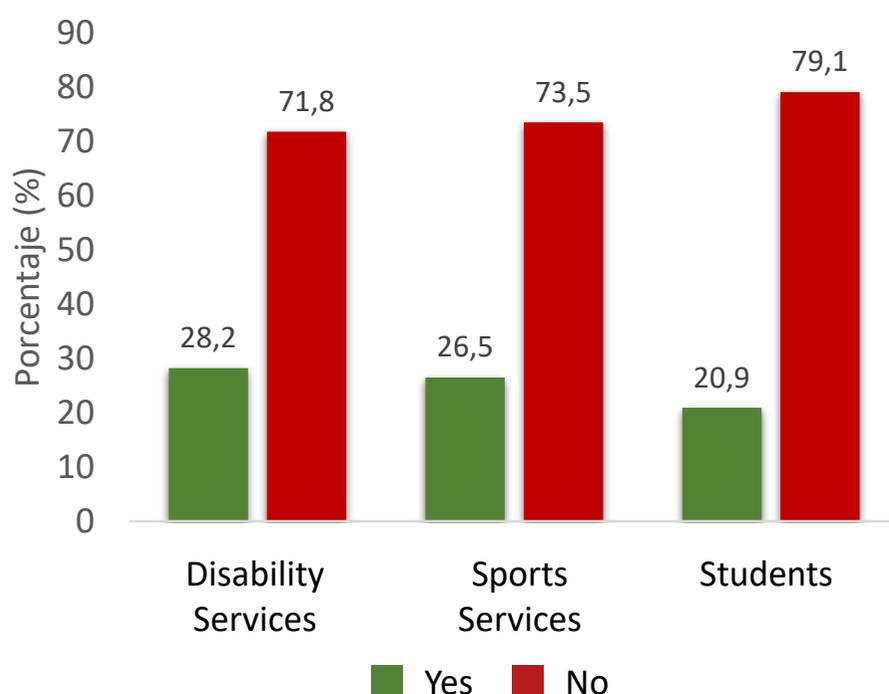
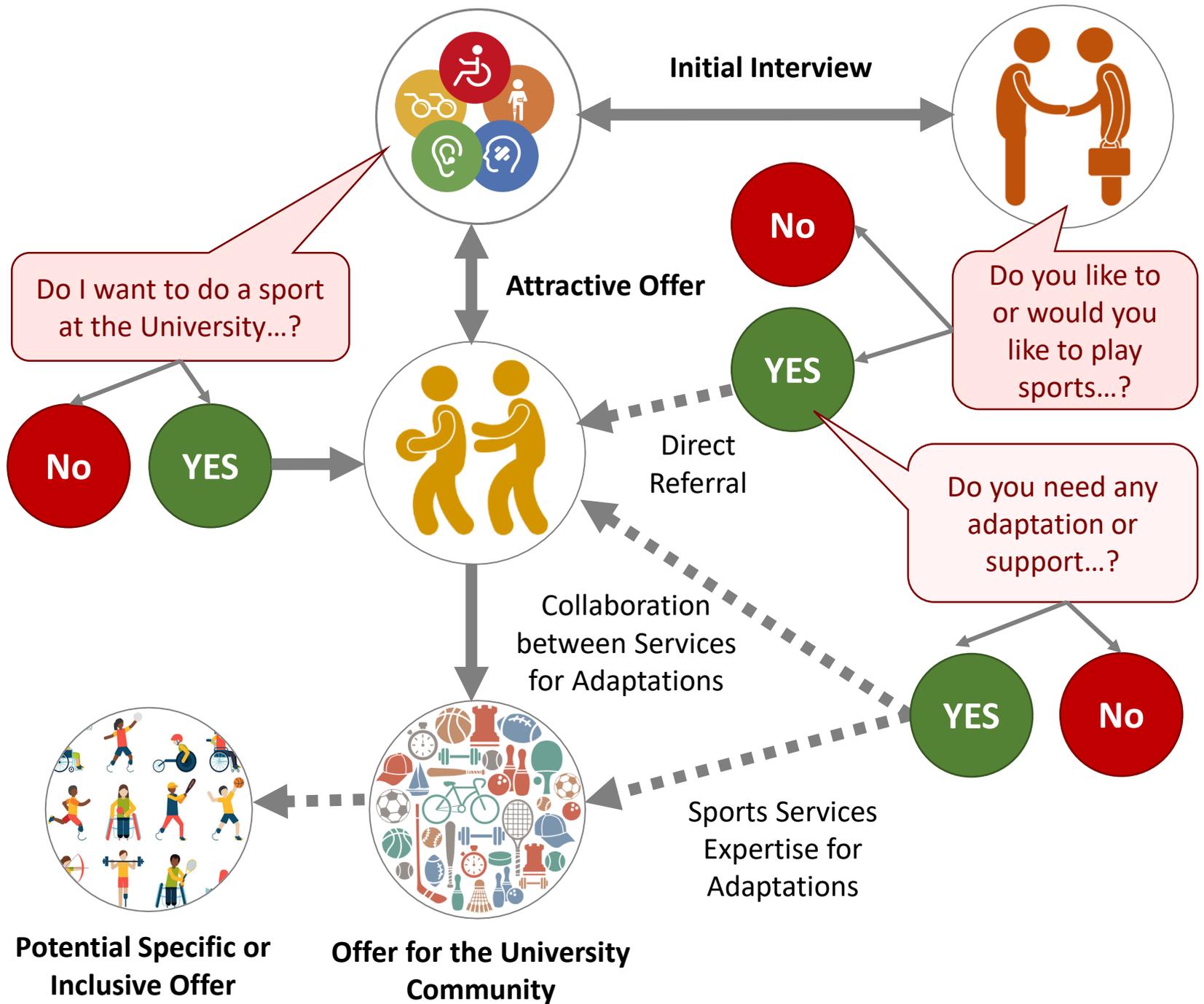


Figure 24. Consideration of the use of adaptations for the practice of physical and sports activities for university students with disabilities.

It is reasonable to think that the type of demand may underlie the existence of this type of protocols or, even, simply conducting the initial interview. We are referring to the fact that a student with a disability, upon arrival to the University, can decide whether or not to use the Services provided by Disability Support Services. Although these Services could reach the entire group of SWD (e.g., those

4.2.2.6. Protocols for Action

who have marked on their registration that they have a certain percentage of disability), only some of these Services include questions on the subject at hand. On the contrary, those students who do not pass through these services, could access, or not, activities offered by Sports Services like any other student, applying the inclusive perspective. Below we show, as a flowchart, a proposal for an **action protocol**.



Students with disabilities demand both specific sports and others that can be practiced in an inclusive manner.

4.2.2.6. Protocols for Action



"We haven't made an action protocol because up until now **participation** has been **minimal**."

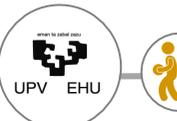
"A **protocol as such does not exist**. That is, we would study it. **We would handle it** and look for all of the solutions and adaptation but there is not any preliminary protocol."

"Access to information has not been easy. Because **asking and resolving concerns is complicated**. You have to send an email and wait for them to answer, but they don't resolve your concern at that time. So I would like there to be individual tutoring to explain the sports offering and to meet with 100% of the university athletes with disabilities and clarify all questions in the moment to not have to wait, for example, 3 months to get an email answered."



"Already in the first interview they tell us **if they are interested in doing sports or not**. They do a questionnaire with their first and last names, what difficulties they have had in other years, and from there we put if they are interested in sports or not, if they have done them or not, etc. **We will out the form with the questions that we agreed on with sports services...** That is how they get in touch with sports services and MAT asks them again, have you done any sports or not that would be of interest to you? ... from sports **they ask for advice** on how to handle the person and there is always **coordination** between us."

"I believe that sport is the most universal and most normalized activity that university has. I believe that the young people join because there is **very wide range of activities**, so **everyone does it their own way**. Some do yoga, some compete, some go down to the fitness rooms, etc. This gets resolved by going to the sports Unit and saying look this is student so-and-so who wants to do sports and **needs this type of needs** and that's it."



"I know about a young man who played soccer on crutches and we had to **adapt the rules** because if he hit the ball with the crutches it was a hand ball, even though for him they were his legs."

"And then on some box on the registration form where it can be marked '**I play sports**' and from there have a **database** and be able to contact them."



4.2.2.7. Training of Professionals

TRAINING OF PROFESSIONALS WHO PROVIDE PHYSICAL ACTIVITY AND SPORTS SERVICES TO STUDENTS WITH DISABILITIES

Training Deficiencies or Lack of Trained Personnel

Training and Qualification of Professionals

When we asked the professionals from Disability Support Services and the Physical Activity and Sports Services from the Universities participating in this study to this effect, we found that 28.2% and 20.6% consider that they have personnel qualified to respond to the needs of university students with disabilities for sports (Figure 25). Although both percentages are very low, the one reported by Support Services is slightly higher (+7.6%), due to their greater experience and regular functioning in making adaptations.

On the other hand, when we asked students with disabilities during the face-to-face interviews, 46.3% affirmed that the University had responded to their needs for the practice of physical or sports activities (Figure 26).

The **training of professionals** who serve SWD thus appear as one of the determining factors for adequate inclusion in the educational community (Wilhelmsen and Sørensen, 2017).

Adequate knowledge of the needs of the group would improve positive attitude toward their attention and interaction, reducing anxiety when serving this student body, increasing professional confidence and motivation to continue working in this area, as well as expanding their wealth of experiences and strategies in practice.

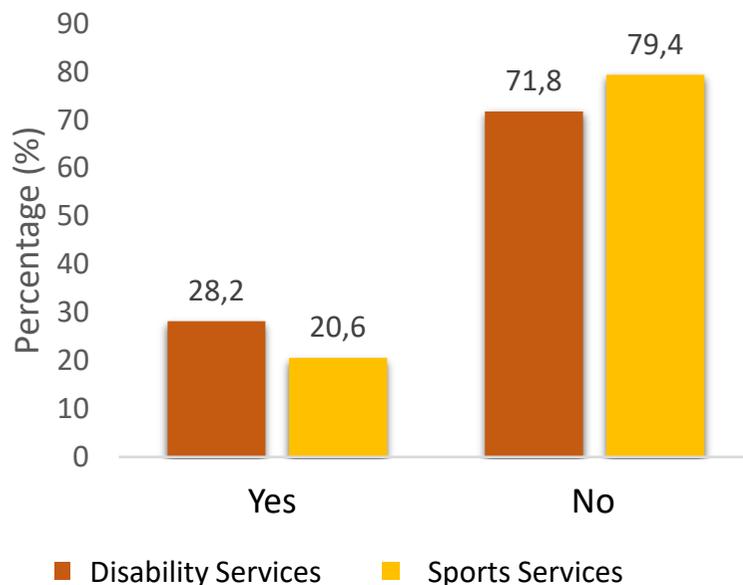


Figure 25. Availability of professionals with knowledge of physical activity and sports for people with disabilities.

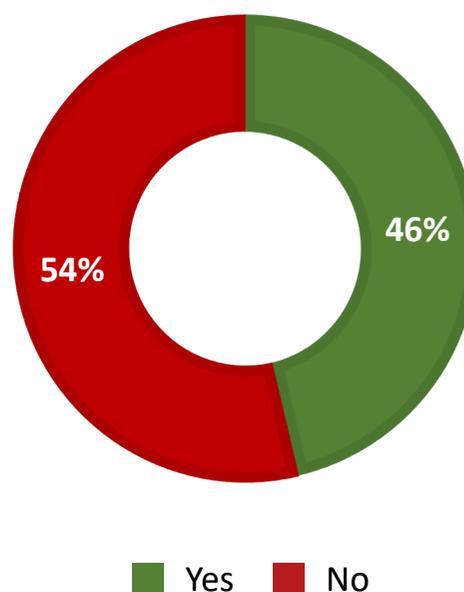
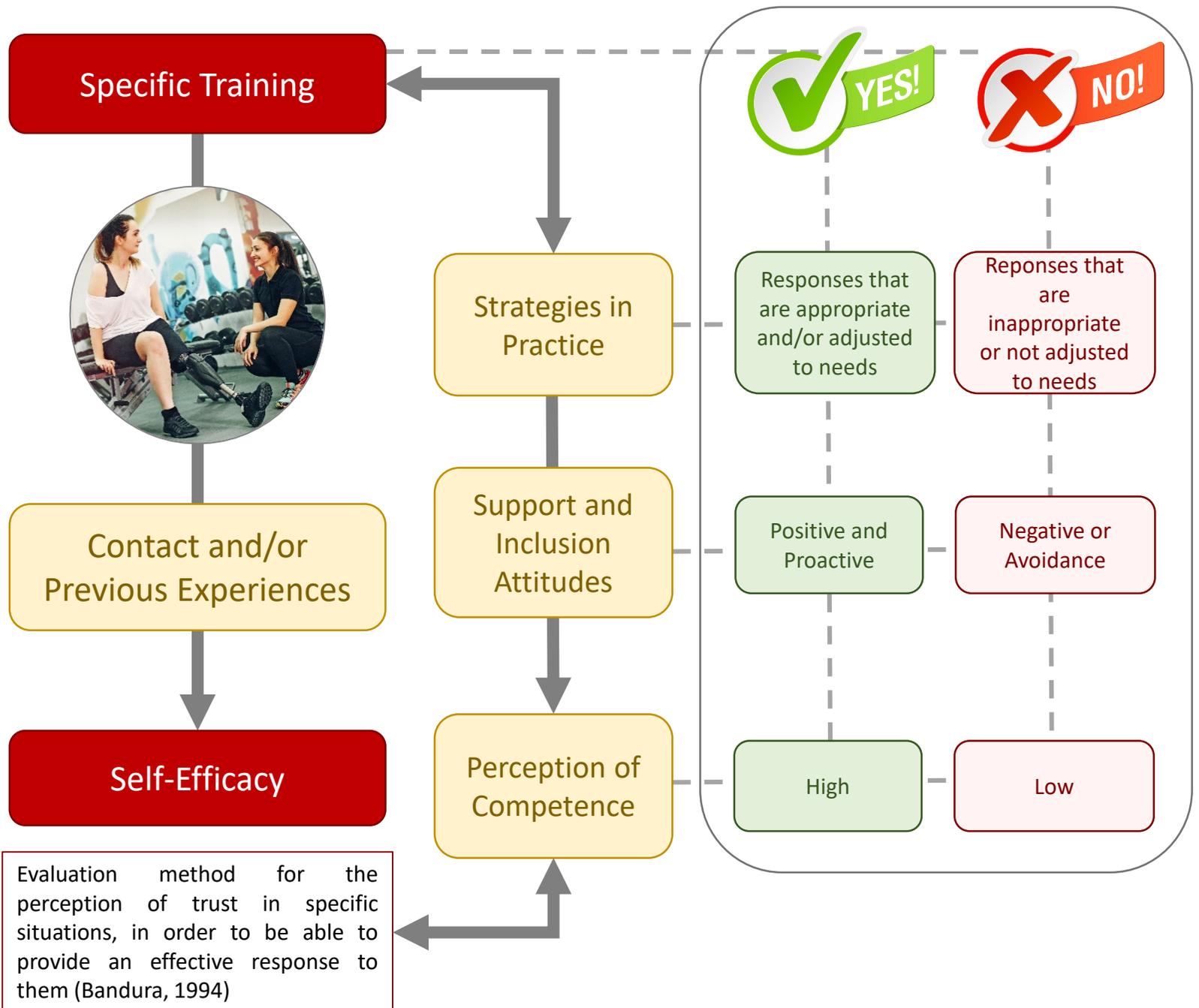


Figure 26. Percentage of students who consider that their university responds to their individual needs for the practice of physical activity or sports.

4.2.2.7. Training of Professionals

Specific training and the acquisition of knowledge about disability are crucial for access to physical and sports activities (Vickerman and Coates, 2009), so that those professionals who have not had adequate prior training will not be prepared to attend to the diversity of the group (Rust and Sinelnikov, 2010), possibly impacting their perception of professional self-efficacy. In this sense, professionals must feel able to adapt their work or involvement, whether in practice or in the management of the offering, with previous experience or training in relation to the needs and possibilities of practice for people with disabilities as essential (De Boer, Pijl, Post, and Minnaert, 2011).



4.2.2.7. Training of Professionals

If we consider **self-efficacy** as the feelings that people have about their capacity to perform their functions in an environment that requires certain demands (Bandura, 1994), those physical activity and sports professionals who perceive high self-efficacy do not feel that their capacity to respond is called into question and will perceive this situation as a challenge to respond to. On the contrary, those professionals with a low level of perceived self-efficacy could have inconsistencies between their ability and the demands that SWD could have, possibly even avoiding situations with contact with this student body.

The **beliefs** demonstrated by professionals during their professional practice can be a predictive factor of their strategies in practice (Kozub and Lienert, 2003), attitudes (Taliaferro, Hammond, and Wyant, 2015), intent for inclusion, and inclusive behaviors (Beamer and Yun, 2014). Nevertheless, it should be noted that these relationships may be conditioned by the student's type of disability and previous contact (Wang, Qi, and Wang, 2015), the quality of training received (Wang et al., 2015), the age of the professionals (Özer et al., 2013), or one's own beliefs about inclusion.

From the content analysis from the face-to-face interviews for the three stakeholders involved, we can draw a series of conclusions in this regard:

1. The need to provide **human resources with specialization** in diversity support.



*"...we should **train the professionals**. **Specific** training and find out about new trends because sports models and other things change every year."*



*"...at the beginning of the year, we do some welcome sessions and we inform them about all of the services so they can make use of them, and also sports services is there at these sessions. In addition, within sports services they have a **person specialized in adapting** what needs to be adapted for students for the activities that already exist."*

2. Advancing toward the **professionalization** of services for adapted physical activities and sports.



*"Well, specific programs, integration programs. And providing to us economically. Because if we only are going with **volunteerism** from the people that are in the sport that is not going to work."*

3. Showing a **positive attitude** towards support for students with disabilities who desire to perform physical and sports activities.



*"...there is a lot offered. But here we are **very aware**, I wouldn't say only here, but throughout Spain."*

4.2.2.7. Training of Professionals

4. Optimizing available human resources through **permanent** or **continuous training**. This would be related to collaboration with external entities and the offering of inclusive physical activity and sports.



*"I would always look for activities that didn't need to have other professionals to avoid creating expenses and that they are very **inclusive**. The only thing to look for is an instructor who is used to working with people with disabilities. And also making agreements with existing entities or NGOs that are dedicated to leisure or inclusive activities."*

5. Conducting an orientation about the **feasibility of practice with the current offering**, involving both Disability Support Services and Physical Activity and Sports Services in the case that adaptations are required. The progressive inclusion of SWD in University sports activities could result in expanding the offering or attracting new users.



*"...it must be linked to a specific offering, and therefore, a provision of schedules, instructors, activities, and equal treatment. Also talking to sports to see which could be **adapted** from what the university offers."*



*"But I would put someone in the machine room who **was trained in diversity** so that they know more or less how to act in case it is needed. For example, when I go to the gym with my contact lenses, and that person that is there then doesn't know that have this disability, and I want to lift weight that I don't know is hazardous for me, and they let me. I think they should ask what kind of disability you have when you come in so that they know how to act in those cases."*



4.2.2.7. Training of Professionals



“The problem comes at the moment of **not having a qualified professional** to make the activity accessible and that knows about the adapted sports you are practicing. To this day I believe that there is a lot missing. Because training for adapted sports is usually a course during one term for the degree and also optional. A course with very short duration. Where they gloss things over, and they have some background, but **they don’t go into depth**. And many times, to not say most of the time, the syllabus and content of the course are super **outdated**. And then it’s a little bit, that they are given ideas, but it does not end up providing a series of skills or enough time time or enough **reuse** for it to be something updated.”

“**Lack of knowledge** about adapted sports activity and due to **lack of demand** or **ignorance** that this type of thing can be demanded or proposed at the university.”

“Speaking with people, they have told me that they have been a bit **distant** and that the **treatment was not very helpful** or easy to access.”



“We are doing **specific training actions** and **we contracted the provision of activity services** and from sports schools. So it’s not the university’s own staff, but rather companies that provide for us. We try to do specific training actions so that people go with that **inclusive vocation**, and you know as well as I do that sports training, both free and non-regulated degree or training courses are not usually core subjects, but rather electives. So we continue to run into physical activity and sports professionals who do not have training in diversity. And we are contributing our part. And I tell you, the vocation is inclusive, and then we are ruled by circumstances, and it depends on each situation because we are giving guidance for the situation to be remedied.”



4.2.2.8. Accessibility

ACCESSIBILITY OF UNIVERSITY SPORTS FACILITIES

Lack of or Poor Accessibility

Accessible Facilities

After addressing the aspects related to offerings/demand, the information about the potential activities to be carried out, the appropriateness or not of adaptations for practice, and the considerations about the qualifications of the professionals who provide said activities, **Accessibility** to sports facilities is confirmed as a restrictive (barrier) or facilitating (facilitator) element for the practice of physical and/or sports activity by university students with disabilities.

Figure 27 shows that general accessibility for participating Universities is high (79.4 <> 82.1%) when asking Sports Services and Disability Support Services, respectively. However, when asked if they considered that accessibility was appropriate for the sports facilities on their campuses, the percentage decreased significantly to 55.9% and 46.2%, respectively.

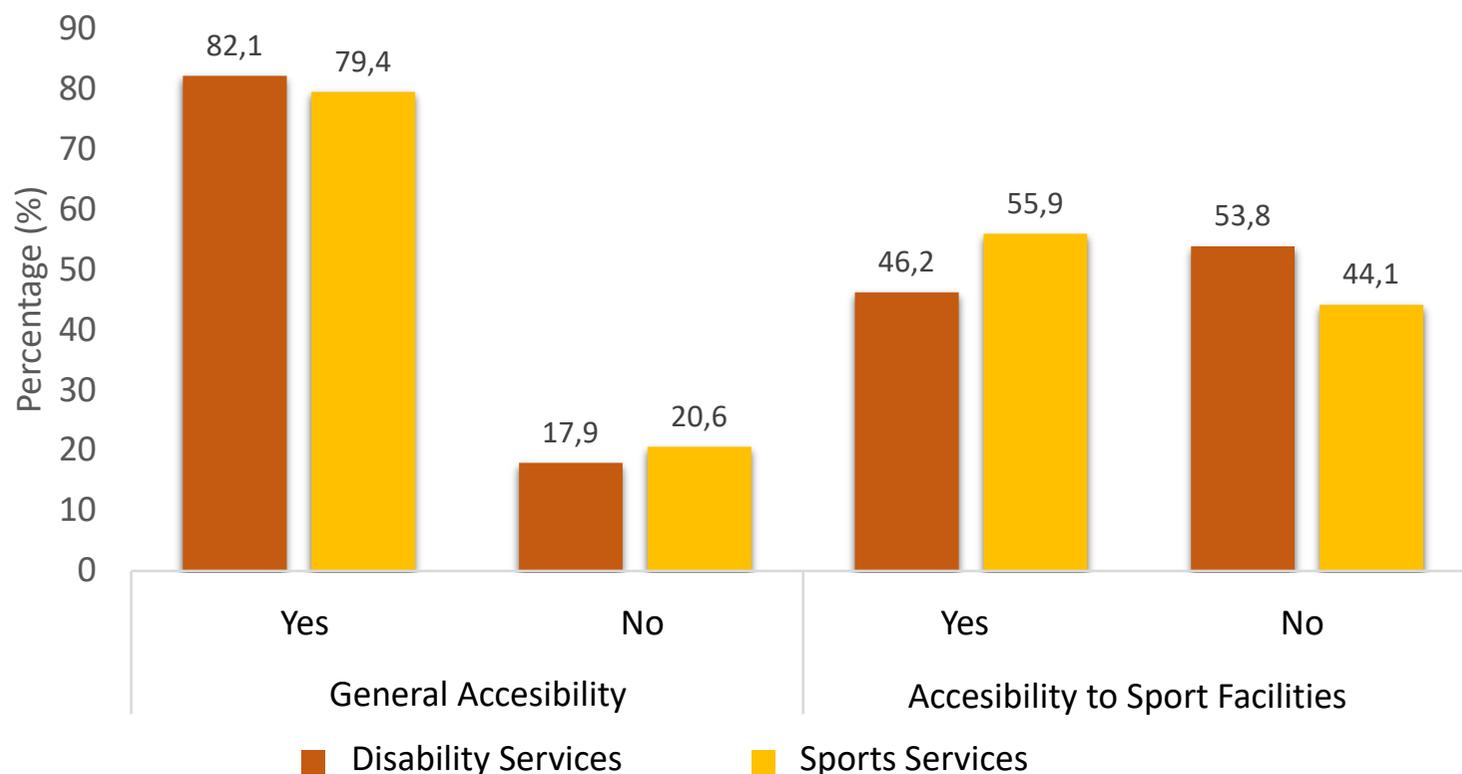


Figure 27. Ratings given for the perception of social interaction barriers.

Although competencies for accessibility matters usually fall on services or negotiated facilities and infrastructures, collaboration with the Services that are the subject of this study would be advisable. Some of the most important collaboration and intervention areas would be:

4.2.2.8. Accessibility

Maneuverability

Ability to access spaces and move within them.

1. Parking in the vicinity of sports facilities.
2. Wider transit areas that allow the flow of users or mobility of wheelchairs with camber, as well as turns, changes of direction, and horizontal transfers.
3. Sliding doors or doors with automatic devices for independent mobility.
4. Horizontal signage for autonomous movement.
5. Accessible changing rooms with correct signage (e.g., lockers with numbers in Braille).

Reach

Reach objects and perceive elements through the visual or auditory channel.

6. Adequate signage for the location of sports facilities and their premises.
7. Adequate contrast between walls, doors, and fixed elements.
8. Acoustic panels to prevent echoing (e.g., background noise)
9. Obstacle-free areas for wheelchair transfers, both in changing rooms and in fitness rooms or rooms for directed activities.
10. Customer service counter with accessible height for wheelchair users.

Uneven Surfaces

Elements that interfere with movement or horizontal routes.

11. Elimination of vertical and horizontal barriers based on universal design (e.g., ramps, stairs, elevators, accessible routes...)
12. Routes that optimize movements.
13. Signage with stripes at the limits of the footprints for each step.

Control

Perform movements accurately and safely.

14. Elements that facilitate manual dexterity (buttons, handles, easy to operate faucets...)
15. Handrails in hallways and on uneven surfaces (e.g., stairs and ramps)
16. Smooth, hard, and non-slip floors.
17. Availability of a lift at the facility and/or hydraulic chair at the pool for transfers.

Perception

Comprehend messages, interpret situations, and capture information in different formats.

18. Give instructions and/or communication guidelines to reception/concierge staff for interacting with or serving people with disabilities.
19. Use of International Accessibility Symbols (ISA)
20. Alternative communication systems for deaf people.
21. Written information that is easy to read and with good contrast with the background.
22. Writing system using pictograms representing concepts.

4.2.2.8. Accessibility

When we asked Physical Activity and Sports Services about the main measures (see ad hoc questionnaire) applied for the promotion and access of their offer for university students with disabilities, we found that 36.4% of the Services interviewed carried out specific actions in terms of **accessibility**. And when we asked if they had measures related to **transportation**, this percentage dropped to 6.1%.



*“Well, offering information and training for them to do physical activities or sports. In addition to **ensuring accessibility for them** and that they can practice sports without any problems. But it’s also very important that the professionals are trained in diversity.”*

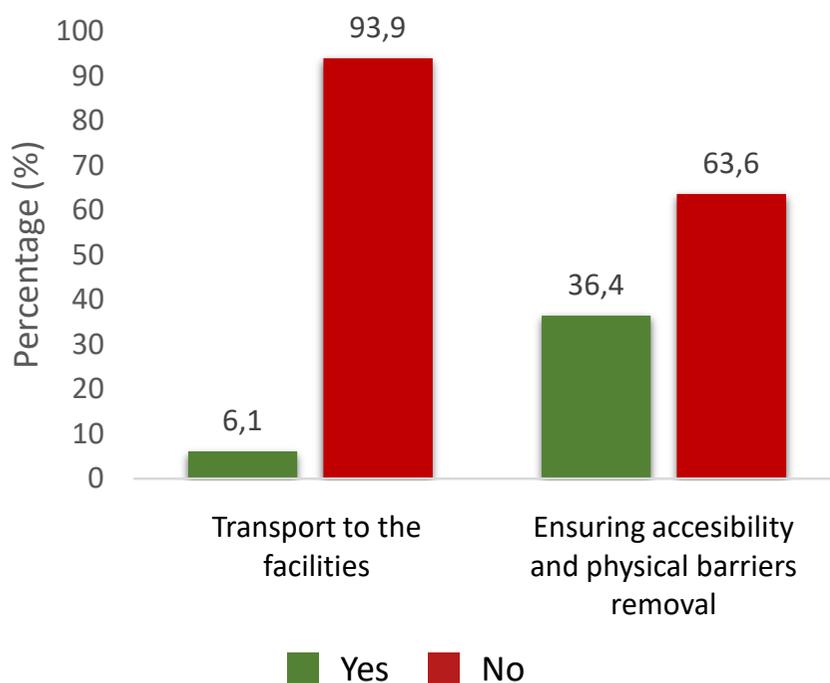


Figure 28. Percentage of Universities taking accessibility measures into account for promoting the practice of sports for SWD.

This data suggests that for accessibility measures:

- a) They cannot be a competence of Physical Activity and Sports, at least with regard to architectural regulations.
- b) There have not been many cases of demand or use of sports facilities by students with disabilities.
- c) The supply of transportation is not provided because the facilities are on the campuses where the students normally carry out their academic activity.

Apart from the general accessibility considerations indicated above, some of a specific nature, due to their low cost and easy implementation, could be:

1. Anchors for wheelchairs or for throwing in throwing areas for track.
2. Table tennis tables that allow for legs to be placed under the table for wheelchairs users.
3. Signage in Braille and informational pictograms on weightlifting and cardio machines.
4. Marked lines on game fields for specific sports (e.g. Boccia), if there is continued activity for those sports.

4.2.2.8. Accessibility



“...I was managing more or less. The only problem is that the machines do not have a grip. There was no adaptation there, **I adapted and did what I could.**”

“The bumps especially are the worst that the sports facilities have or on the way to them. Barriers of the architectural type.”

“Also, the sports booth is set up very badly and I can’t get there. I have to call out from the street for the guy to come out and talk with me.”



“The sports facilities are very good and we have **adapted transportation** to go to the university. They are very helpful at the Student Services Center.”

“I know that they have **pretty good facilities**. At the beginning of the year they sent a brochure with the offering of sports activities, for all of the students at the university. I trained at ULL and competed also. It’s a sports service that works well.”

“Disability services and sports services are good facilitators. The truth is that access here on this hectare of land is super easy and I’m surprised that it’s not used more. I’m very surprised that **there aren’t more people with disabilities that practice sports.**”



4.2.2.9. Material Resources

MATERIAL RESOURCES FOR THE PRACTICE OF PHYSICAL AND SPORTS ACTIVITY FOR STUDENTS WITH DISABILITIES

Lack of Resources

Specific or Adapted Materials

When we asked Physical Activity and Sports Services about the measures they used to allow access to sports practiced by SWD, specific and/or adapted materials was one of the measures included in this regard. However, we found that only 21.2% of the Services interviewed claimed to have some materials of this type, which included goalball balls, Boccia balls, sports wheelchairs, handbikes (three-wheeled bicycles propelled with the arms), or some specific material for the gym (e.g., ergometers or arm ellipticals).

When we asked the students in this regard, we found no evidence (0%) of students who received or accessed materials in the context of university sports.

Such results could be due to four fundamental reasons:

1. The vast majority of Physical Activity and Sports Services do not have such materials, perhaps because there has been no previous offering or demand.
2. The high cost of many of these materials (e.g., a handbike costs about €3,000 and buying a sports wheelchair under €750 is not easy) would restrict their purchase, especially for the cost/demand ratio.
3. It is possible that students with disabilities who perform sports during the university stage have their own materials, especially if they practice competitive sports (e.g., ramp and pointer in Boccia -class BC3-).
4. It is feasible to think that these materials could be accessed, on a loan basis, through collaborations with external entities (e.g., foundations, associations, or sports federations).

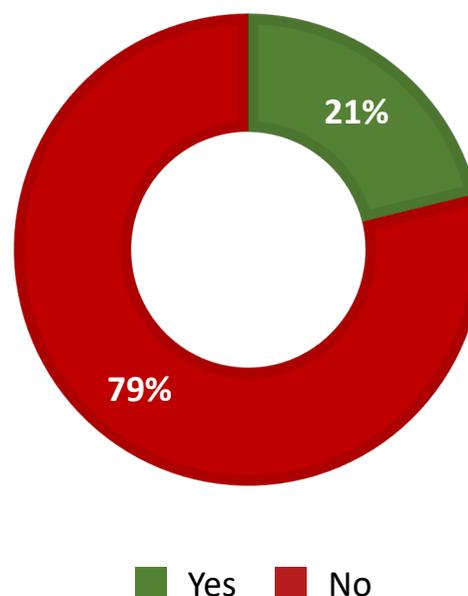


Figure 29. Percentage of Physical Activity and Sports Services that have or provide specific material for the practice of SWD.

4.2.2.9. Material Resources

It would therefore be desirable for each University to analyze the resources available in this regard, so that it can initiate a coordinated offer with Disability Support Services, and subsequently expand the catalog of products suitable for the population, and therefore, the offerings for students with disabilities.



*"...I have not had **any access or resource to meet my sports needs**, because for me in track I would only have to adapt the traffic light instead of a shot because I do not hear it. This is a **very expensive resource** to pay for, and until now nothing has been adapted for me at the university."*



*"...for the practice of sports we have everything depending on the sports modality. There are wheelchairs for tennis, hockey users bring their own chairs, etc. For swimming we don't need specific materials, but we participate in an adapted swimming competition. We are going to organize a national sailing championship and we will have three sonar boats including mixed crew for inclusivity. We have some handbikes but **we always need more resources**. Right now we bought an arm cycle ergometer because the gym did not have this equipment. Either we get the resources through the general university budget which provides for the physical education service, or thanks to the Divina Pastora chair that we luckily have."*



4.2.2.10. Human Resources and Supports

HUMAN RESOURCES AND SUPPORTS FOR THE PRACTICE OF PHYSICAL AND SPORTS ACTIVITY FOR STUDENTS WITH DISABILITIES



In line with the previous section on Material Resources, we asked the three stakeholders involved in the study about the management or provision of human resources for sports practice by students with disabilities, as well as their perception of these supports and if they met their needs. Disability Support Services and those from Physical Activity and Sports reported having measures in this regard in 59% and 38.2% of cases, respectively. This difference may be due to the greater familiarity with Disability for the specialists from Disability Support Services, who tend to meet the needs of this groups for different facets of university life.

However, when asking SWD about whether they had any support or resource for performing physical or sports activity during the university stage, 85.1% answered negatively in this regard; in addition, 53.7% indicated that their needs were not met in terms of physical activity and sports, and 79.1% considered that they the necessary adaptations to access said practice were not able to be completed (Figure 30).

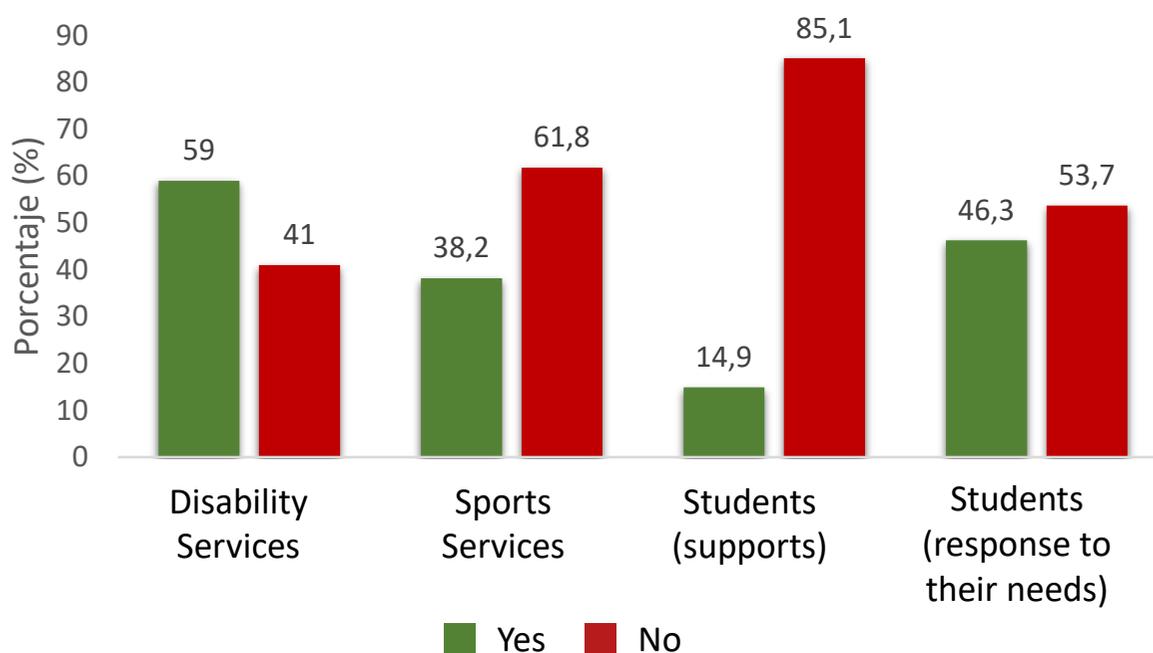


Figure 30. Ratings given for the provision and receiving of supports for the practice of physical or sports activity.

Although there are underlying economic reasons, in most cases, **Volunteering** emerges as a plausible alternative for the shortcomings in this regard. Both services could be asked if they had volunteering programs or actions for the promotion or the feasibility of sports practice for university students with

4.2.2.10. Human Resources and Supports

disabilities. Figure 31 shows that Disability Support Services have volunteering programs at 20.5% of the participating Universities, and 11.8% when applied to the field of Physical Activity and Sports.

These volunteering and support actions can be of great interest to those people with exceptional needs, both general (e.g., dressing, showering) and specific (e.g., coaching, technical assistance in the game). Some of the specific tasks in terms of physical activity and sports could be:

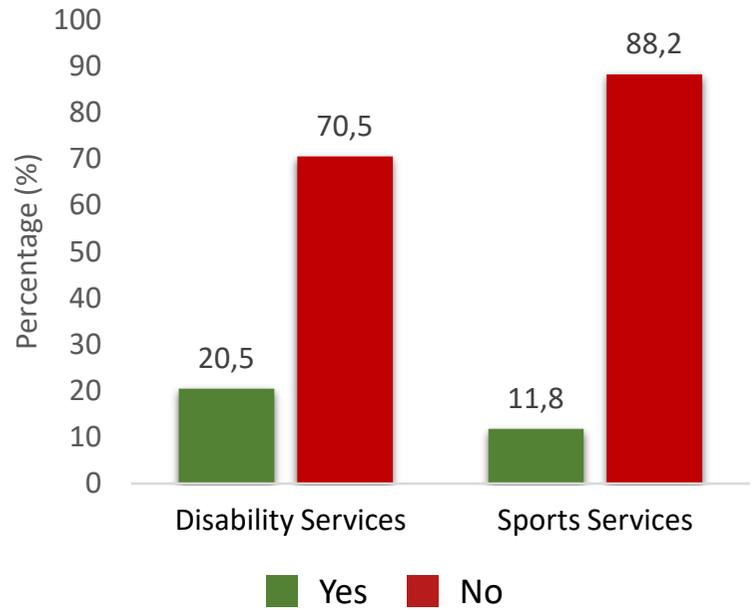


Figure 31. Response percentages of the Services interviewed about volunteering actions.



Volunteering programs for students with disabilities are superior for Disability Support Services, being able to collaborate in activities in activities more oriented to Leisure (e.g., theater, cultural visits, etc.) and not just those for Physical Activities or Sports.

4.2.2.10. Human Resources and Supports



"...for my disability I would need **someone to lend me a hand**, how to help me get changed after training or whatever."



"I was was looking at Zumba, because I know that there is a ** near my school, but I couldn't do hardly anything. Although I could move my arms or try to adapt it as I could. But in the end, I decided against it because it didn't fit with my schedule and also because it would be a lot of trouble because, for example, **I wouldn't have help** to change my clothes and such."

"If you ask, they help you, but if you don't ask, they don't inform you. There isn't a **contact person**."



"And above all, I would encourage **inclusive sports** and not **adapted ones**."



"We don't have specific sports volunteering that favors the inclusion of students with disabilities in physical or sports activities. It's one of the things that I want to work on with the cooperation and **volunteering** development offices."



"We have **our disability volunteering**. It's the University that does the volunteering courses. One of them is the same as the drug addiction and cultural volunteering because there is one for disability. In the case of disability, it doesn't work for everything. When they do the course, then they have to do a few hours of practicum and we tell them that are many services that we are related with. They can volunteer where they want, and then MA has made some race and tells us, 'we have a race where there will be participants with functional diversity,' and they request some volunteers so then we look at the list of volunteers and we send some email and say that the activity is happening on such day, for four or five hours, then this can serve as hours for getting the ECTS credit and half. Although we only train them in disability. Possibly for a race we are not going to train, so it is MA from **sports** who can train them before doing the race and we send them there."



"The university has global volunteering from social action. And we coordinate with them. We also do our own volunteering for sports, not specifically for people with disabilities. It's a theoretical and practical training program that **provides ECTS credits**. The case of assisting students with disabilities has not arisen, but if it did, **there would be no problem to fulfill this function**."



"...from the unit that I manage, we proposed to the University to recognize credits for different programs. One of them is **sports volunteering**. And then, for example, the group of people with visual disabilities that joins an activity such as weight lifting, well then the student does that activity with the student with visual disability and supervises and does the spotting will be recognized with a credit and a half. Both the one who does the activity and the one who does the assisting work... This work has been normalized and, well, a group has been created with quite a bit of autonomy due to the volunteering team. The **type of student volunteers depends on the type of action to be done**. In this case, if an activity with with weightlifting will de done, we try to have students from the sports sciences school from the elective of adapted physical activity and sports to be the ones who d this assisting work because of their knowledge, and this serves the students as continuous improvement and they will be compensated by their educational plan."

4.2.2.11. Agreements and Collaborations

AGREEMENTS AND COLLABORATIONS WITH SPORTS ENTITIES FOR PEOPLE WITH DISABILITIES

Lack of Agreements

Collaborations with Entities

The agreements and collaborations with entities external to Universities such as Territorial Federations (e.g., FESA in the Valencian Community, FVDA in Basque Country), social (ONCE, associations for people with mental health conditions), or cooperative entities (e.g., AVIVA in Salamanca); to which we could add municipal (e.g., Town Halls, Provincial Councils) as well as private entities (Companies, Gyms, Fitness/Sports Centers), compose a dynamic ecosystem of sports practice for people with disabilities during the university stage.

Among the most important reasons that we can use to promote this type of collaboration, whether at the institutional level or more limited to the scope of action for the Services of interest, we find:

1. **Access to sports modalities or specific services** that the University cannot provide due to lack of resources or facilities.



*“The information has been easy to find although **I would like to do some** swimming, because as far as I know, they don’t have any. Nor any agreement with other pools. But I would like them to offer something like **therapeutic swimming** or something like that. I would like for there to be more activities, because, for example, for mountain climbing there are lots of activities, but for other people who can’t walk, there aren’t. I wish there was more variety.”*

*“And more than anything, the offering is spreading by word of mouth and it’s relatively easy to find out about things. If it were up to me and they offered classical dressage **that would be great for me**, although I have never proposed any agreement with my club or anything because my club is in A Coruña.”*

2. That external entities can conduct their **activities** at the **university sports facilities**, providing qualified personnel for this purpose. In addition, this could contribute to the visibility of the group in the university environment and can be a niche for student practicums for students with related degrees (e.g., Physical Activity and Sports Sciences, Physiotherapy, Occupational Therapy...)



“I would love for something like introduction to scuba diving to be offered because I would love to scuba dive. Since the university has a pool with a dynamic chair to get in. I would love to do it.”



“It could be solved with agreements with entities, offering them the facilities and the activities that we offer so they can see that the offering is attractive and thus give visibility.”

4.2.2.11. Agreements and Collaborations

3. **Diversifying the offering of activities**, being able to do it in a closer environment that helps balance academic, sports, and family life.



"I think that on the one hand, we need to be able to offer means such as facilities or arrangements and agreements with gyms, stadiums, and other sports services that..."



*"Currently there are users with disabilities who go to the pool or do weight lifting or other activities. But, **what happens on campuses where we don't have our own facilities?** We have agreements with clubs and other gyms where users go, and in some cases they receive a subsidy, because we consider that they are at a disadvantage over those who come here where we have sports facilities. And for these **agreement activities** we have them in a brochure and we facilitate where students can go, for example, those with reduced mobility, children, those over 65 years old, etc."*

4. **Personalizing the offering** to the characteristics and needs of the users.



"A la carte activities. Because these are the needs that they have."

5. **Access to materials and equipment** that the University does not have in quantity or quality, normally due to their high cost.



"There is an activity through an association for people who use wheelchairs, through basketball 3x3 and those from the sports club always come that have a team. They bring the wheelchairs and participate in the tournament. And those who participate do so in wheelchairs, it's inclusive. It's the most practical way for students to try it and to know that it exists and to keep in mind the adaptations that must be done. For the association, it's a form of promotion, and for us, it's a way for the students to find out about an adapted form of sports."

6. Channeling specific **competition demands** for athletes with disabilities.



"It's been easy to find, but they don't have what interests me, which is adapted swimming and being able to participate in the championships."



4.2.2.12. Incentives and Scholarships

INCENTIVES FOR THE PRACTICE OF PHYSICAL AND SPORTS ACTIVITY FOR STUDENTS WITH DISABILITIES

Lack of Encouragement Measures

Incentives / Scholarships

In this group of barriers and facilitating factors we will address several of the dimensions extracted from the content analysis from the interviews conducted with the three groups of interest, but which are closely related to each other. Once we have addressed the elements that can constrain the previous aspects (information), getting started (access), and realization of practice, we will focus here on those factors that could be determinants of continuity in it (persistence).

When asking Physical Activity and Sports Services from the participating Universities about the most used measures for encouraging the practice of the group in question, we found (Figure 32) that the **reduction or exemption of fees** for sports services is the most used measure (21.2%) in this respect. This measure has also been identified as a facilitating element for the practice of physical and sports activities, and for the three groups in the study:

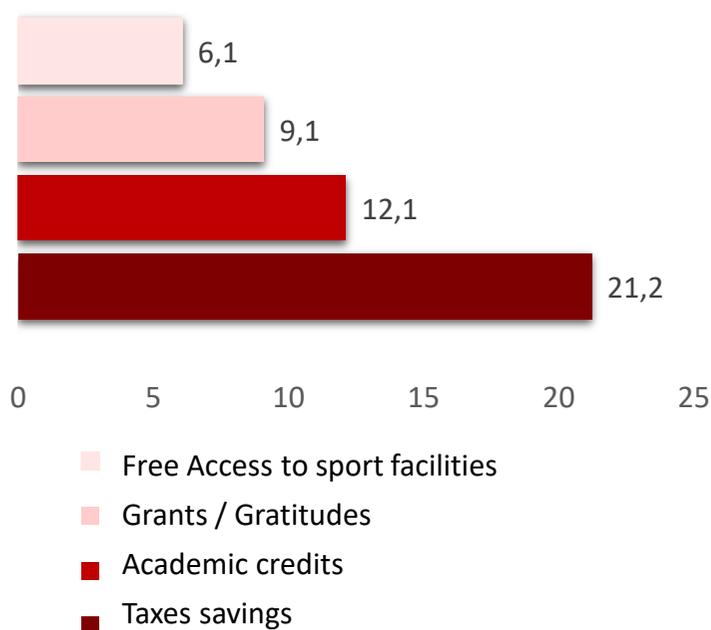


Figure 32. Percentages of application of the most common measures to encourage SWD to participate in physical and sports activities.



"...when I did goalball here at the university I didn't have **to pay anything**, not me or my teammates."

"This year the exemption for sports was reinstated and it seems to me to be a very **good measure**."



"...we do have quite a relationship with sports services and we advise students in a general way after the initial assessment interview, and we inform them that there is a sports area and that they can enroll in any physical and sports activity and for this year **they will have fee waivers**. For example, here they do adapted archery and adapted Valencian pilota."

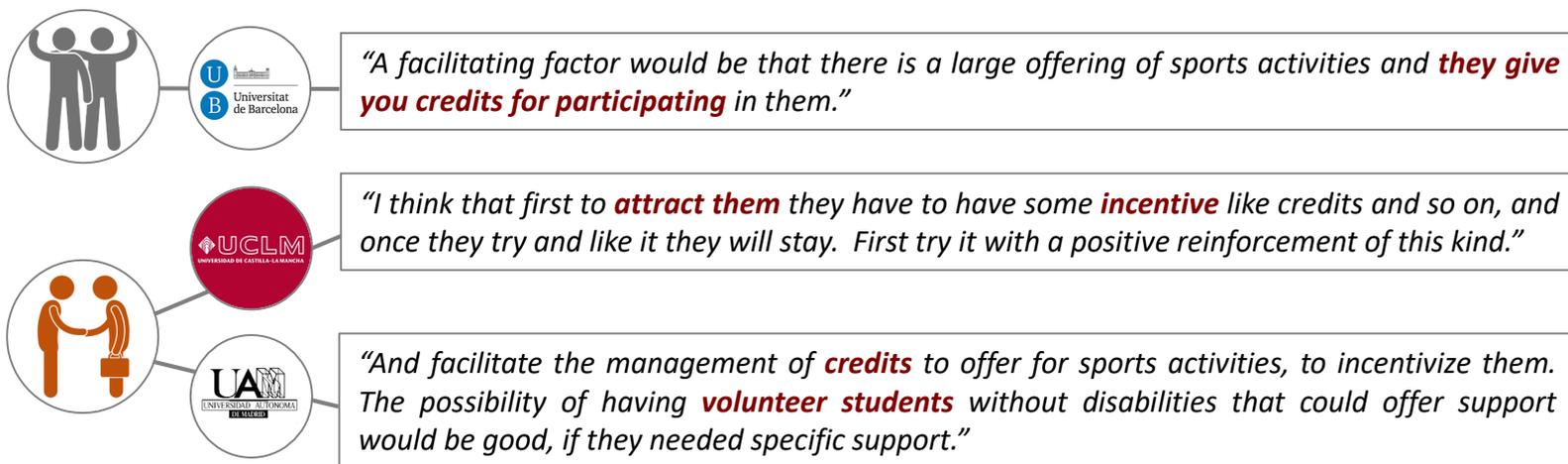


"Within the regulation for fees, we have **fee waivers** nor only for our students, but also for any adapted sports association or federation. So we give our facilities to the boccia league, FESA, CAPABA, and some other associations."

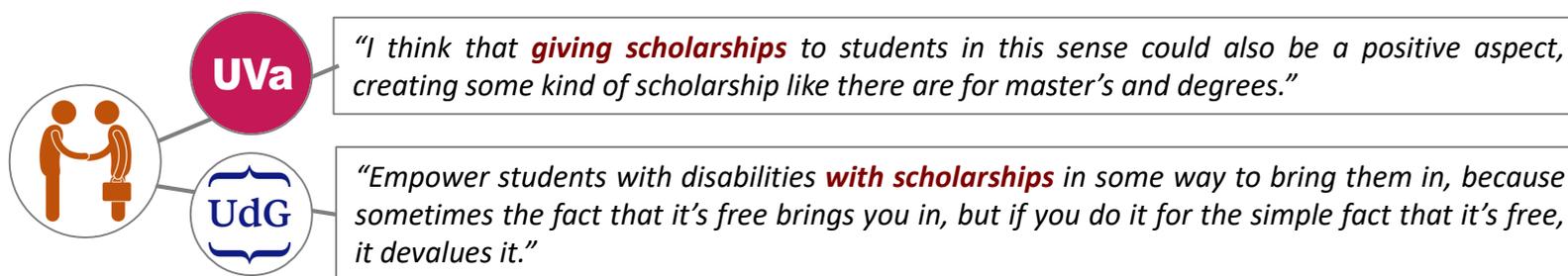
4.2.2.12. Incentives and Scholarships

Such exemption measures can be applied not only to students with disabilities as a measure of affirmative action or encouragement to practice, but also to those peers who could play a role relating to it (see volunteer roles in section 4.2.10).

The next measure (12.1%) that we find is the possibility of obtaining recognition of **academic credits** for participating in sports activities, under the provisions of Article 12.8 from the University Student Statute. As we discussed with fee waivers, this recognition of credits could be applicable for volunteer roles to support users with exceptional needs, as a partner for inclusive sports, in addition to participation in the sports activity itself.



In third place we find **Scholarships** and Recognitions (9.1%) which can be applied to the dimensions of: i) acquisition of sports **equipment**, ii) economic support for **travel** for training and/or competition, and iii) student **collaborator** or support student.



A **"pyramid" scheme of scholarships** (Figure 33), with supports ranging from pre-entry to the university to high performance, focused on personalization, follow-up, and balance with academic activity can have great transfer and potential results in competitive sports. Such levels could be composed of:

1. University scholarship programs for athletes from educational centers from their context: e.g., facilitate training at their facilities, a mentor to guide future choices for studies. In addition, this type of scholarship and support could help with recruiting future students if they are targeted during the high school stage, rewarding both academic and sports excellence.

4.2.2.12. Incentives and Scholarships

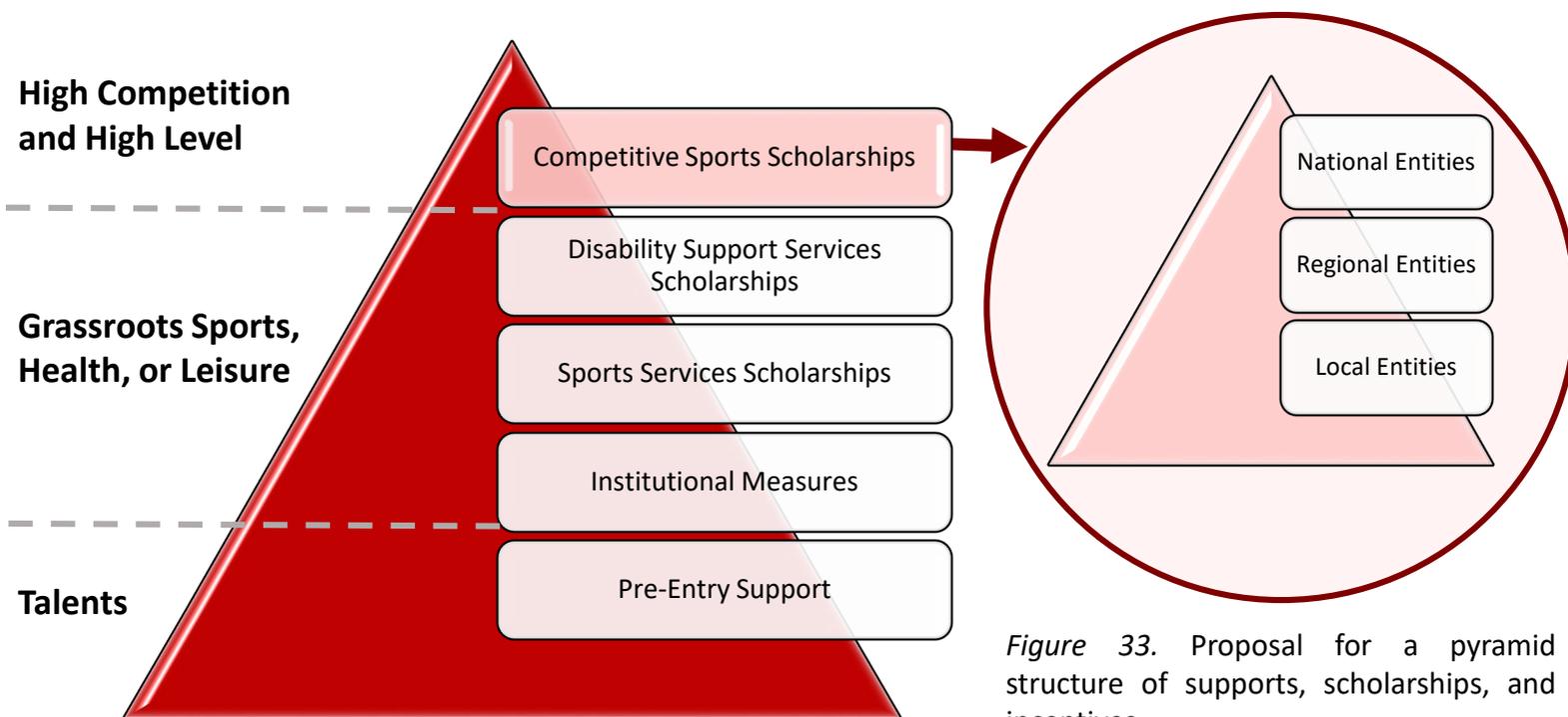


Figure 33. Proposal for a pyramid structure of supports, scholarships, and incentives.

2. **Institutional measures** that can reach the broadest spectrum of university students with disabilities (e.g., exemption from service fees or for access to sports facilities)
3. Scholarships and supports from **Physical Activity and Sports Services** themselves, where the particular needs of users are identified: support personnel, equipment modifications, collaboration with clubs, etc.
4. Scholarships from Disability **Support Services**, normally aimed at acquiring academic material, transportation, or support/personal assistance personnel. Given that these services have deeper knowledge of the characteristics and needs of students with disabilities, aspects related to the practice of physical activity or sports during the university stage could be included in the evaluation criteria for granting these scholarships.
5. Those who wish to and could reach **competitive sports**, generally of a specific nature due to the needs for technification and refinement, a new pyramid of support would begin at the following levels:
 - a) **Local/Community Level**: support to clubs and entities related to or dedicated to disability that can host SWD for sports development purposes (e.g., allow training at university facilities)
 - b) **Regional Level**: take note of the high level and high performance athlete lists published by the Territorial Sports Directorates and support balance with academic life. At this level there are support programs from regional entities in which Universities can play a dynamic role among their students (e.g., the FER Project from the Trinidad Alfonso Foundation in the Valencian Community)

4.2.2.12. Incentives and Scholarships

- c) **National** Level: same as above with respect to the annual lists from the National Sports Council. At a higher level, for the degree of dedication and sporting excellence, we could also add here the ADOP Paralympic Plan, the Spanish Paralympic Committee, and its sponsoring companies. At this national level, we could also point out other scholarships from programs like Opportunity to Talent from the ONCE Foundation.

It should be noted here that only 13.4% of students interviewed claimed to receive some type of financial support for sports, so 83.6% of them considered it appropriate to establish **scholarship programs** for the practice of sports.

And ultimately, the ad hoc instrument used for the interview for Physical Activity and Sports Services showed that only 6.1% allowed **free access** to their sports facilities. Although this measure was noted somewhat when discussing fee waivers (for services), some universities (e.g., University of Valencia) apply it to Federations and/or Associations for disability. Measures of this type have a three-fold purpose:

1. Strengthening collaborations with these entities (see 4.2.1), facilitating new practice opportunities for SWD from Universities, both in quantity and in quality.
2. Contributing to awareness and visibility through sports (see 4.2.4)
3. Being an element of the Social Responsibility policies for the University.



“There are always things that can be improved, such as giving students here some kind of break economically at the gyms, etc.”

Therefore, **Economic Resources** are indicated as a potential barrier for the practice of physical and sports activities for university students with disabilities, although many of the measures mentioned above could help optimize existing resources: accessible facilities, universal design for the offerings, inclusive practice, etc. Consequently, it is not only about investing in resources, and therefore a quality offering for SWD, but also about giving the **importance** that **physical activity and sports** deserves **during the university stage** in light of the benefits that it provides, and for its relationship with the employability competencies that we will discuss in the next Chapter.



*“I would like to know. Because I’ll tell you that we come up against what we come up against, with a budget reservation and we collected the information but **there was nowhere to get them from** (the activities).”*



*“But I do see that **sports is where they spend the least** and that’s the only thing I like least.”*

4.2.2.12. Incentives and Scholarships



"I think that basically the university should encourage interest and visibility for sports and physical activity. This implies **economic support**, visibility, collaboration with other entities, and the adapted or inclusive practice or offering itself that we currently do not have."



"I think that aren't ready, I wish I was wrong (sports specialists). For example, the last two questions you asked me were key. If the university has some kind of **human support** or some kind of **financial support**. These are two great barriers that students can come across when practicing physical activity. Then there are other things that can cause problems, like there not being offerings or others, but if students know they have those two supports I think that is the most important."

"...yes, I **would like to create an agreement** with our scuba diving club. Although my peers have told me that they are quite far away and that the prices **are very expensive**."



"...I remember that many years ago, a student with a physical disability wanted to practice adapted archery. And the bow was provided. It was requested **through a scholarship** and in the end, the the student kept the bow."



"In the end, what we do is an inclusive nature. What we do is **equalize** those athletes with functional diversity who participate in official sports competitions and have certain results to the results they would have obtained in our maximum performances and we give them scholarships from the UPV. It is the consideration for the athlete, the fact of having a certain result recognized in an official competition."



4.2.2.13. Consistency and Balance

FACTORS RELATING TO CONSISTENCY AND BALANCE OF SPORTS AND ACADEMIC ACTIVITY

In this section we will report on the perception of the three stakeholders involved when asked about the importance they gave (“yes” or “no”) to different barriers and facilitating factors for balance between academic and sports activity.

Regarding the **Barriers**, Figure 34 shows that the most limiting factor is **stress and/or feeling overwhelmed** (48.5%) from intense academic and/or sports activity, along with other family, social, or work factors, with Support Services as the group that gave greatest importance to this variable (55.3%), with similar values (~45%) given by Students and Physical Activity and Sports Services. The next most important factor (44%) is **tiredness**, where Students and Support Services rated similarly (~52%), but very far from the value given by Physical Activity and Sports Services (27.3%), perhaps because of the value of helping with rest that sports can provide those that practice them, and that those responsible for these services would know about in more depth. In third place are the **overlaps of schedules** (39.4%), a fundamental aspect for adequate balance, and where Disability Support Services (47.4%) and Physical Activity and Sports (42.4%) give a noticeably greater importance than

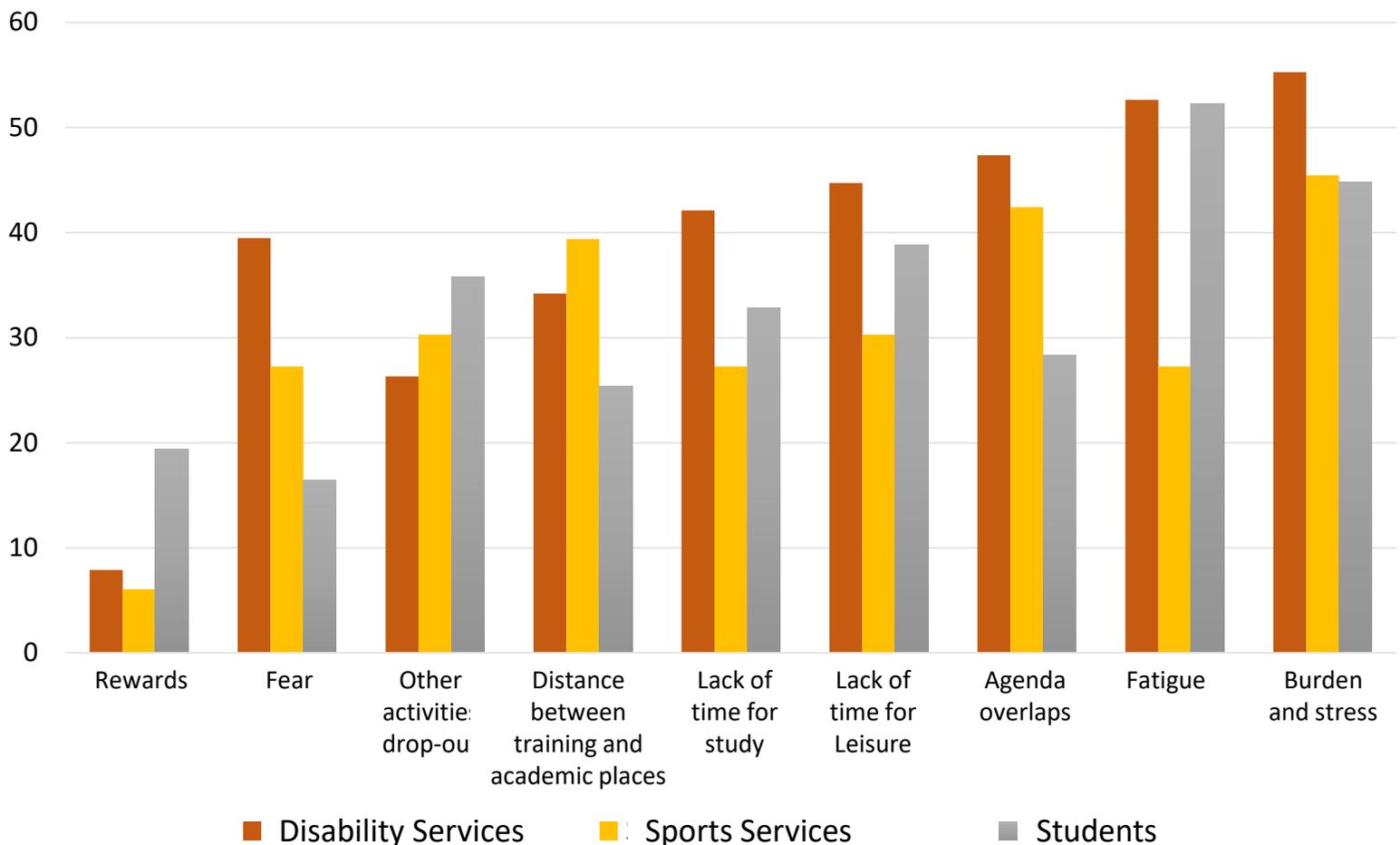


Figure 34. Importance granted to the facilitating elements for balance of sports and academic activity.

4.2.2.13. Consistency and Balance

what students give (28.4%). This result may be due to the fact that the students interviewed (91% of them declared that they are active in sports) are more aware of the importance of physical activity and sports to this effect, seeking a way to combine it with studies (e.g., training during free times during the school day or after finishing the day at the university), while those from the Services may see this factor as a barrier for access or getting started with activity for those students with disabilities that are not yet active or practicing.

The factors of limited **time for leisure** (37.9%) and **time available for studying** (34.1%) receive a greater importance for Disability Support Services (44.7% and 42.1%), followed by the Students (38.8% and 32.8%), and Physical Activity and Sports Services (30.3% and 27.3%). It is possible that the perception in this respect is less favorable insofar as their work frequently focuses on the students who require more supports and adaptations. Regarding **transportation** (distance between the academic and sports center), it has been given an overall importance in 33% of the cases, with the Students as those who give the least importance to it (25.4%). Keeping in mind that there are usually sports facilities at all the university campuses, at least for the main ones or for the Universities with only one campus, the students interviewed (most of them active) can consider that their transportation needs are covered because they are able to perform their usual activity.

We find some consensus regarding quitting or **discontinuation of other activities** in order to perform sports activity (26.3 – 35.8%), although there is again discrepancy in the importance given to the last two barriers: **fear** of practicing sports (27.7%) and **economic support** (11.1%). There is a notable difference regarding the fear of getting involved or practicing sports activities, where the 39.5% given by Disability Support Services contrasts with the 16.4% of Students. The lack of knowledge of the first related to possibilities of practicing sports for people with disabilities would contrast with the knowledge of the capabilities for the realization of the second group. And the opposite would occur with economic aid, where Students give importance in 19.4% of cases.

Some of the main reasons underlying these difficulties with balance could be:



"...normally the first year they are very overloaded with the adaptation process and the workload."



"The practice of sports at the university is declining because of the Bologna plan. Because of the varying, changing schedules."



4.2.2.13. Consistency and Balance

With regard to the **Facilitating Factors**, Figure 35 shows agreement among the responses for the three groups for the study, allowing to identify the degree of importance given to each factor. With ratings higher than 75% of the interviewees, we found **commitment** to the activity (90%), **intrinsic motivation** (89.15), **support from peers** (77.8%), and **family support** 76.4%). A second group of factors would include **management of free time** (65.6% where Students identified it as a facilitating factor in 73.1% of cases), training/competition **schedules** (64%), and **rapport** with classmates (63.4%). We see that with regard to the **flexibility of teachers** (47.5%) for attending competitions and balancing academic and sports activity, Physical Activity and Sports Services are those who give greater importance in this regard (57.6%), as they are aware of the needs they have in this regard, and that can be applied to all university students. Finally, the factors related to **scholarships** for academics (29.2%) and sports (23.5%) are those that have been identified as the least determinant factors for access to and the practice of sports for university students with disabilities.

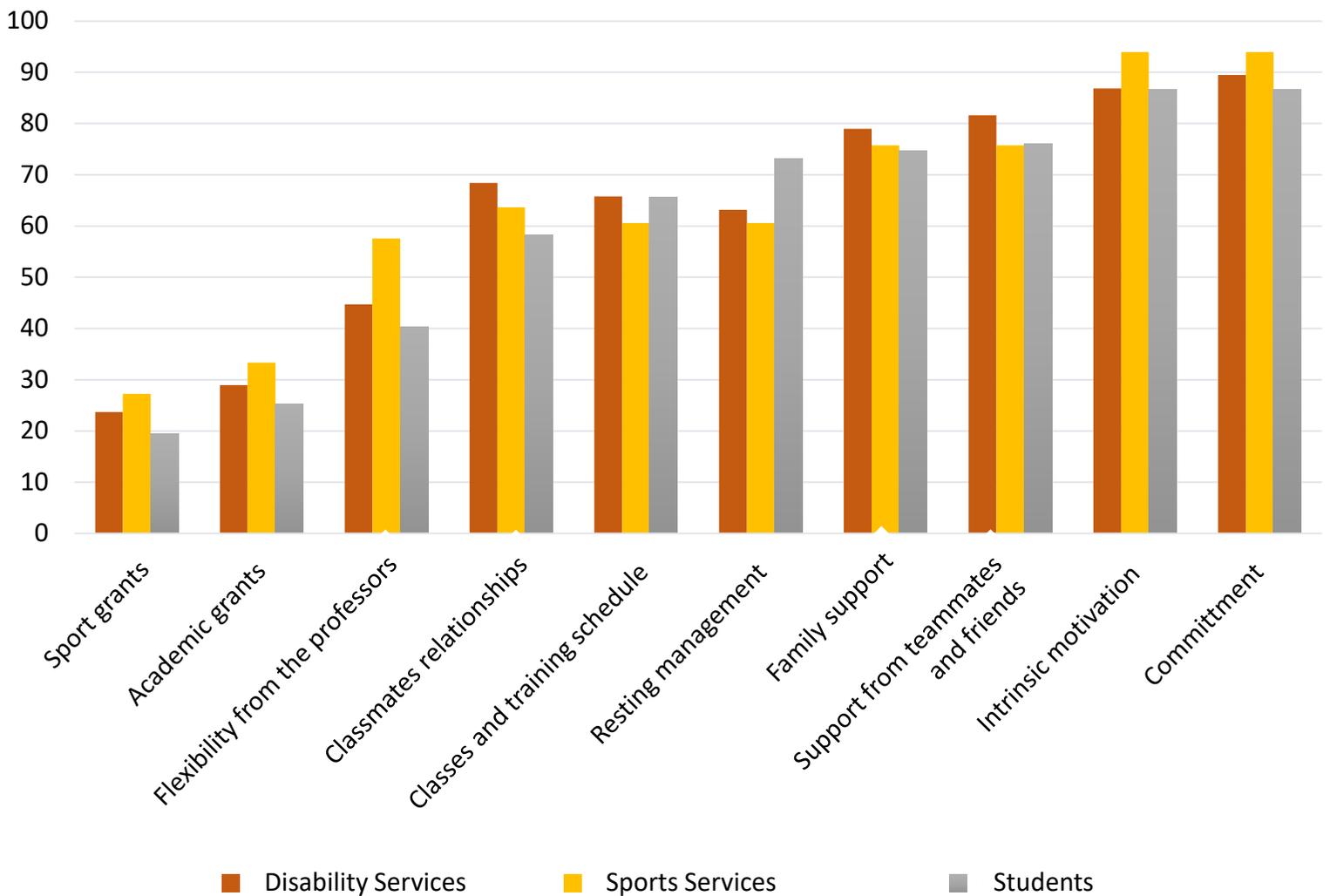


Figure 35. Importance given to facilitating elements for the balance of sports and academic activity.

4.2.3. Barriers and Facilitators: SUMMARY

In the last section of this Chapter, we present a **summary** of the concurrence of barriers and facilitating factors for the practice of physical and sports activity for university students with disabilities. We present these **barriers/facilitating factors**, differentiating between the two dimensions included in the ICF: **environmental and personal factors**. Each column has different studies from the literature that have examined this topic for adults with disabilities, and those that were reported with this study will be outlined as a rectangle. However, it should be noted that this study is the first of its kind for the university context.

| ENVIRONMENTAL BARRIERS | Rimmer et al. (2012) | Bragaru et al. (2013) | Mulligan et al. (2012) | Buffart et al. (2009) | Williams et al. (2014) |
|---|---|--|---|--|---|
|  | General Physical Disability | Amputation | Neurological Damage | Physical Disability acquired at an early age | Spinal Cord Injury |
| Accessibility | Ramps, safety, maneuverability, reach... | No accessibility in facilities near home. | Parking at facilities. | Not very accessible sports centers in the area. | Frustration about not continuing hospital activity. |
| Financial Costs | Payment for services, transportation, material... | --- | Higher expenses associated with disability. | Payment for services, transportation, and material. | Costs for service with specialized staff. |
| Material (for practice) | Condition, maintenance, and adaptation to needs | --- | --- | --- | --- |
| Equipment (personal) | --- | Prostheses limit activities to be performed. | --- | Increased costs and wait times. | High cost of sports wheelchairs. |
| Regulations | Accessibility, personal attention, transportation, or use of support animals. | --- | Lack of inclusive legislation. | --- | --- |
| Information | On offerings, accessibility, and services. | --- | --- | Offering of inclusive programs. | Lack of information points. |
| Training | Personalized attention, adaptations, program management, training... | --- | --- | Knowledge about adaptation and response to exercise. | Lack of professionals who provide individualized responses. |
| Attitudes | Fear of responsibilities, indifference towards inclusion... | Curiosity and looks from other users. | Negative social attitudes. | | |
| Programs (Offerings) | Few programs for physical conditioning or recreation. | --- | --- | Limited program offerings. | Lack of specific or inclusive programs. |
| Transportation | Lack of transportation. | Dependence on public transportation. | --- | Distance, lack of autonomy for driving, wait times, and transportation of materials on public transport. | --- |
| Social (Supports) | --- | Lack of a partner. | Lack of support. | Lack of support. | Support from third parties due to lack of autonomy. |

4.2.2.14. Barriers and Facilitators: SUMMARY

| PERSONAL BARRIERS | Rimmer et al. (2012) | Bragaru et al. (2013) | Mulligan et al., (2012) | Buffart et al. (2009) | Williams et al. (2014) |
|--|---|--|-----------------------------------|---|---|
|  | General Physical Disability | Amputation | Neurological Damage | Physical Disability acquired at an early age | Spinal Cord Injury |
| Emotional and Psychological Aspects | Overprotection, hostility, fear of the unknown... | Acceptance, self-efficacy, limits on activity... | Low self-esteem or self-efficacy. | Lack of motivation, not perceiving benefits, embarrassment, discomfort... | Feeling excluded, embarrassment, depression, not accepting one's image... |
| Social Attitude and Disability | --- | --- | --- | Perception of insecurity or fear of practicing physical activity. | |
| Health | --- | Medication, state of health, pain threshold... | --- | Lack of energy, risk of injury... | Comorbidities associated with spinal cord injury... |
| Schedules | --- | Balance with work, family, home... | --- | Lack of time or other priorities. | It takes more time, adaptations, adaptations, daily life skills... |
| Dependence on Third Parties | --- | --- | --- | --- | Supports for transfers, hygiene... |
|  | ENVIRONMENTAL FACILITATING FACTORS | | | | |
| Accessibility | Anti-slip flooring, buttons... | --- | --- | --- | Sufficient space for maneuvering chair. |
| Costs | Specific programs, discount on rates. | --- | --- | --- | --- |
| Materials / Equipment | Hydraulic chair for the pool, adaptations for machines... | Adapted material, high-performing prostheses. | --- | --- | --- |
| Information | | Therapeutic benefits of physical activity. | --- | --- | Involving people with disabilities to inform... |
| Training | Promote continuous training and teamwork. | --- | --- | --- | --- |
| Attitudes | Awareness campaigns, involving the area... | Support from family and friends. | --- | --- | --- |
| Laws and Regulations | Accessibility and affirmative action measures | --- | --- | --- | --- |
| Programs | Collaboration of entities to offer programs. | --- | --- | --- | --- |
| Transportation | Free transportation... | --- | --- | --- | --- |
| Volunteers | Buddy programs... | Increasing relationships in the area... | --- | --- | Involving third parties for best practices. |
| Social Aspects | --- | --- | --- | --- | Supports from friends, family, specialists... |

4.2.2.14. Barriers and Facilitators: SUMMARY

| PERSONAL FACILITATING FACTORS | Rimmer et al. (2012) | Bragaru et al. (2013) | Mulligan et al., (2012) | Buffart et al. (2009) | Williams et al. (2014) |
|---|---|---|--|---|---|
|  | General Physical Disability | Amputation | Neurological Damage | Physical Disability acquired at an early age | Spinal Cord Injury |
| Emotional and Psychological Aspects | Connection between rehabilitation and physical activity... | Being part of a group, extensive contact network... | --- | Enjoyment, catharsis, social contact... | Autonomy, empowerment, achievement... |
| Physical Factors | --- | Improvement of health... | --- | Body image, chair handling... | Medication management, improves daily skills... |
| Previous Sports Practice | --- | Continuity of benefits... | --- | --- | Staying active... |
| ENVIRONMENTAL BARRIERS | Griffin et al. (2016) | Jaarsma et al. (2014) | Kurková (2016) | Soundy et al. (2014) | McDevitt et al. (2006) |
| |  |  |  | Mental Health  | Mental Health |
| Accessibility | Access barriers, inadequate signage... | --- | Signage, ILS, ambient noise... | --- | Availability of nearby facilities. |
| Financial Cost | --- | Costs for sports services. | --- | --- | --- |
| Material (for practice) | --- | Lack of material, high cost... | --- | Low purchasing power. | --- |
| Equipment (personal) | --- | --- | --- | --- | --- |
| Regulations | --- | --- | --- | --- | --- |
| Information | Lack of information about opportunities. | Unawareness of possibilities. | --- | --- | --- |
| Training | Ability to make adaptations. | Unsuitable adaptations, lack of qualification... | Specific training. | Knowledge of benefits, multidisciplinary work... | --- |
| Attitudes | --- | Little acceptance at sports centers. | Negative attitudes. | Comparison with others, stigma... | Stigma, labels... |
| Programs (Offerings) | --- | Few options and options that are very competition-oriented. | Communication problems (e.g., removal of prostheses) | Lack of specific programs. | --- |
| Transportation | Risks for autonomous mobility. | Lack of transportation. | --- | --- | --- |
| Social (Supports) | --- | Fewer opportunities to train with friends and peers. | --- | Difficulties with socializing. | --- |

4.2.2.14. Barriers and Facilitators: SUMMARY

| PERSONAL BARRIERS | Griffin et al. (2016) | Jaarsma et al. (2014) | Kurková (2016) | Soundy et al. (2014) | McDevitt et al. (2006) |
|--|---|---|--|---|--|
| |  |  |  | Mental Health  | Mental Health |
| Emotional and Psychological Aspects | Lack of motivation for practice. | Low motivation, difficulty in relating, fear of injury... | Low self-esteem, fear of not communicating, lack of enjoyment.. | Lack of motivation, low self-esteem, self-confidence, and low perception of physical performance. | Mood changes, effects from medication, lack of energy... |
| Health | Associated comorbidities. | Lack of energy and age. | --- | Side effects from medication, mood fluctuations. | Being overweight, low level of fitness, tiredness... |
| Schedules | --- | Time required for other activities. | --- | --- | --- |
| Dependence on Third Parties | --- | Dependence on others to exercise. | --- | --- | --- |
| Previous Sports Practice | --- | --- | --- | Lack of previous experiences. | --- |
| ENVIRONMENTAL FACILITATING FACTORS | | | | | |
| Information | --- | --- | --- | Being informed of the benefits and the autonomy to choose. | --- |
| Training | --- | --- | Lip reading, use of communication cards... | --- | --- |
| Attitudes | --- | Receiving advice from other professionals. | Agreement with previous communication guidelines. | Understanding the issues of disability. | --- |
| Social Aspects | --- | Support from family and friends. | --- | Social support, feeling part of the group... | --- |
| PERSONAL FACILITATING FACTORS | | | | | |
| Emotional and Psychological Aspects | --- | Having fun, relaxing, meeting people... | --- | Fun, autonomy, ability to choose... | --- |
| Physical Factors | --- | Feeling healthy, control of body weight | --- | --- | --- |
| Previous Sports Practice | --- | --- | --- | Mastering technical gestures and being successful in practice. | --- |

4.2.2.14. Barriers and Facilitators: SUMMARY



| ENVIRONMENTAL BARRIERS | van Schijndel-Speet et al. (2014) | Mahy et al. (2010) | Bodde y Seo (2009) | Taliaferro and Hammond (2016) | Stanish et al. (2015) |
|--|---|---|--|--|---|
| | Intellectual Disability | Intellectual Disability | Intellectual Disability | Intellectual Disability | ASD |
| Accessibility | --- | --- | Barriers for the area where the activity is performed. | Difficulty accessing specific or inclusive programs. | --- |
| Financial Cost | Costs for services and transportation. | --- | Low purchasing power. | Lack of economic resources. | --- |
| Regulations | --- | --- | Lack of clear policies for inclusion. | Age limits for participation. | --- |
| Information | --- | --- | Lack of awareness of the offerings and their benefits. | Frustration with access to information. | --- |
| Training | Inhibition of practice due to lack of training. | --- | Lack of specialists. | Training to work with people with disabilities. | --- |
| Attitudes | --- | Understanding of disability. | Negative attitudes. | Not providing help if it is not requested. | --- |
| Programs (Offerings) | --- | Lack of programs that encourage creativity, enthusiasm... | Few options and/or not age appropriate options. | Few opportunities and lack of specific programs. | --- |
| Transportation | Traffic safety, lack of transportation or dependence on others. | --- | Location of the activity and lack of transportation. | Location of the activity and dependency for transportation. | Lack of transportation. |
| Social (Supports) | Lack of time for personal attention. | Lack of community and family supports. | Lack of social support, family conflicts... | --- | Lack of support system for sports programs. |
| PERSONAL BARRIERS | | | | | |
| Emotional and Psychological Aspects | Understanding of the activity, difficulty with tasks... | Non-enjoyment, low concentration... | Expectations | Lack of motivation, low motor perception, laziness... | Not knowing about the benefits, low perception of competence, fear... |
| Health | Discomfort when performing activities. | Being overweight, heart disease... | --- | --- | --- |
| Schedules | --- | --- | --- | Lack of time, poor balance... | Lack of time. |
| Dependence on Third Parties | Dependence on third parties, supervision... | --- | --- | Dependency, not being the same age as the group, imposed choice... | Dependence on supports. |

4.2.2.14. Barriers and Facilitators: SUMMARY

| ENVIRONMENTAL FACILITATING FACTORS | van Schijndel-Speet et al. (2014) | Mahy et al. (2010) | Boode and Seo (2009) | Taliaferro and Hammond (2016) | Stanish et al. (2015) |
|-------------------------------------|--|--|---|---|-----------------------|
| | Intellectual Disability | Intellectual Disability | Intellectual Disability | Intellectual Disability | ASD |
| Information | --- | --- | --- | --- | --- |
| Training | --- | Fun activities with clear objectives... | --- | Knowledge of disability to manage activity. | --- |
| Programs | Programs in the community and reducing travel. | Routines, easy to follow tasks... | Promotion of formal and informal physical activity. | Better communication between users and service providers. | --- |
| Transportation | --- | --- | Activities close to home. | --- | --- |
| Volunteers | --- | --- | --- | Including family members or friends in the activities. | --- |
| Social Aspects | Supports, rewards, social relationships... | Supports for performing the activity and incentives. | Knowing the characteristics of the disability. | Proactive environment for searching for practice opportunities. | --- |
| PERSONAL FACILITATING FACTORS | | | | | |
| Emotional and Psychological Aspects | Recreational aspects and activity adapted to the disability. | --- | --- | Enjoyment and search for new social relationships. | --- |



Chapter 4.3.

Contribution of Practice of Physical and Sports Activity on the Development of Employability Competencies for University Students with Disabilities



4.3. Professional and Employability Competencies

For the development of this last Results Chapter, and prior to the Conclusions for this study, we would ask the reader to refer to the ONCE Foundation Mission for the Cooperation and Social Integration of People with Disabilities. Thus, the main objective of the **ONCE Foundation** is to carry out programs for **work integration**, training, and **employment** for people with disabilities, and overall accessibility, promoting the creation of globally accessible environments, products, and services. As we explained in the Objectives of this study, the analysis from the habits, offerings, barriers, and facilitating factors for the practice of physical and sports activity for university students with disabilities will help to improve the understanding of the current situation and to design future policies for the matter.

4.3.1. IMPORTANCE GRANTED TO THE DEVELOPMENT OF VARIOUS PROFESSIONAL COMPETENCIES THROUGH SPORTS

When we asked the managers and/or specialists from Disability Support Services and those from Sport Services about whether the practice of sports “provides some competencies and/or skills related to employability and entrepreneurship for students with disabilities” we found a very positive response, as shown in the Figure to the right (Figure 36).

Figure 37 shows, in order of overall importance given by all the groups participating in this study, the importance given to different professional competencies that could be developed with the practice of physical and sports activity by people with disabilities. Both in the interview and for the online ad hoc questionnaire, we included a total of 10 professional competencies of interest proposed by the working group and collaborators, valued on a scale of 1 (strongly disagree) to 4 (strongly agree). Considering the maximum and minimum value of possible answers, the result has been transformed into percentage with respect to the maximum possible value, thus attempting to facilitate the reader’s understanding in this regard.

We can observe how the concentration of the different competencies is very similar for the three groups interviewed, although for the group of students who completed the online questionnaire, we found lower values in all of the competencies.

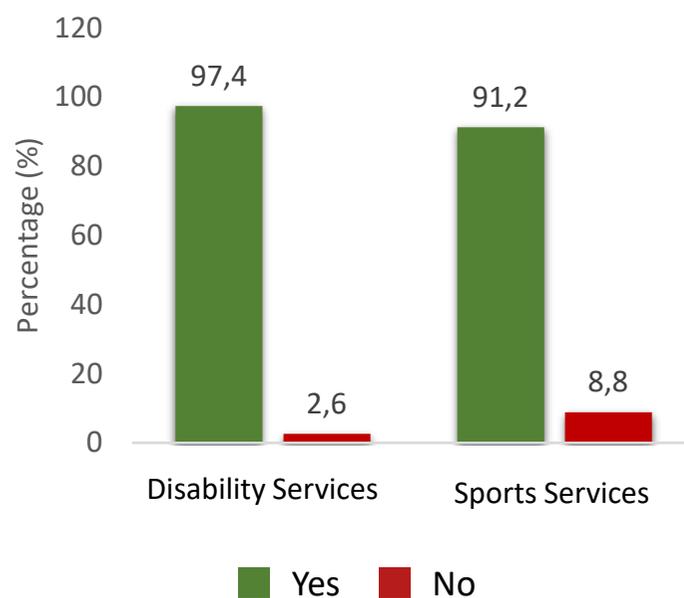


Figure 36. Response percentages for the Services interviewed about the development of professional skills and employability through sports.

4.3. Professional and Employability Competencies

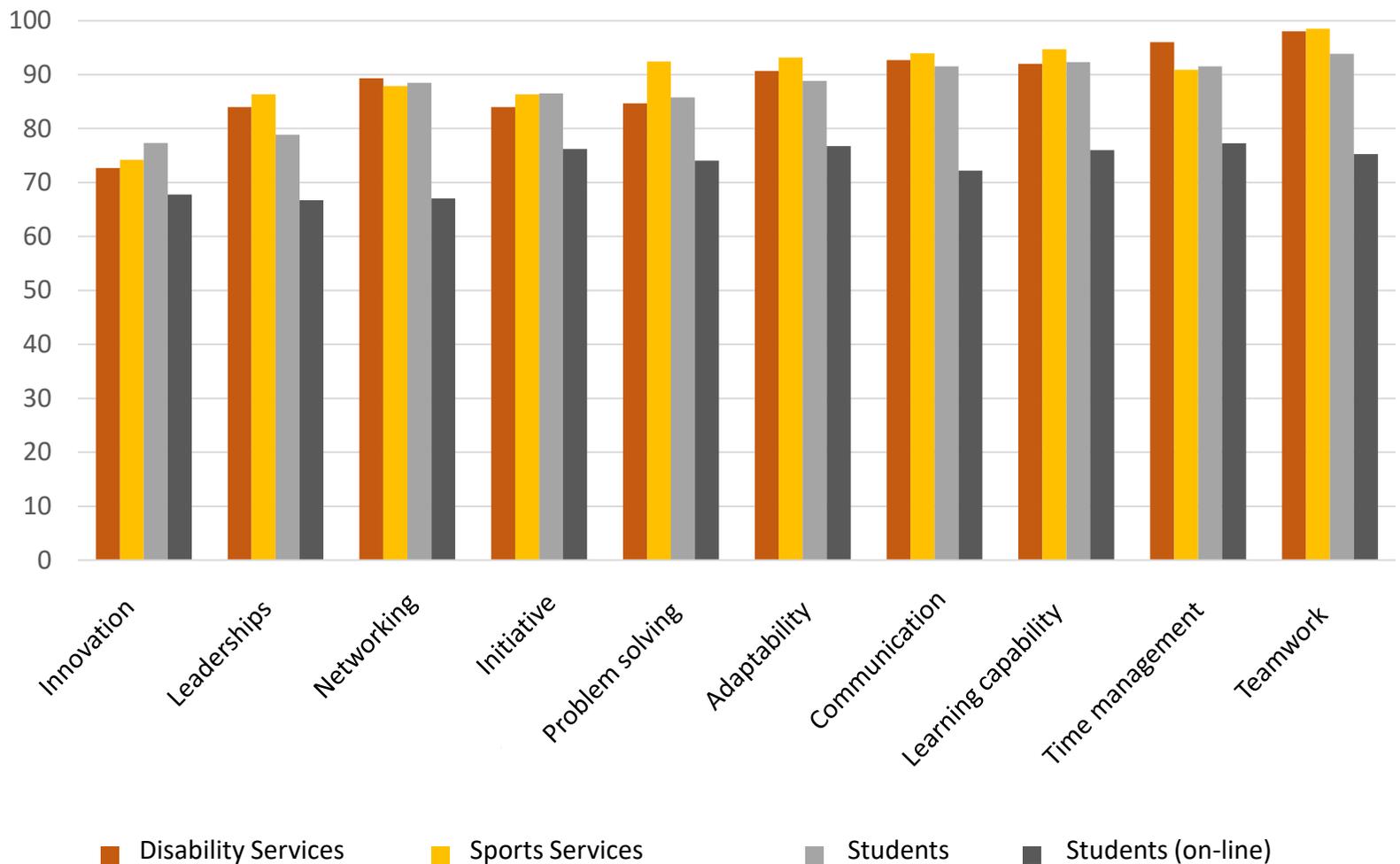


Figure 37. Importance given to professional competencies that can be enhanced with the practice of sports.

Next, we will present each of the 10 competencies obtained in order of overall importance given, accompanied by a definition and some evidence from the qualitative analysis from the content of the face-to-face interviews.



TEAMWORK

Establishing participation and cooperation relationships with other people.

This category received a degree of importance of 91.4%, which amounts to 96.8% if it is separated from the online questionnaire (see later analysis)

*“Teamwork, for example, and all that it entails, would be the competency that seems to that would be the best to come along when it comes to **future work**.”*

*“Sports give you **teamwork**, social skills, commitment... All these are cross-disciplinary skills that can help the student find a job more easily.”*



4.3. Professional and Employability Competencies

*“For example, the ability to excel, sacrifice, **teamwork**, overcoming obstacles, commitment, motivation... I think this is very important to improve the employability of the student.”*



*“I would like to think that a life dedicated to sports has to be **valued by companies** and institutions. Because it shows commitment, consistency, a knowledge beyond academics, sacrifice. And that is not acquired by sitting on the sofa at my house studying. It also gives you a maturity that makes it easier to see what you want. And for example, **although the sport I do is individual**, like track, it also **improves your teamwork because you train with more people**, adapting to the environment, you have to organize your time very well in order to get everything right, etc.”*



*“Above all, the **companionship**, putting yourself in someone else’s shoes and being able to help those around you. You create values that will serve you when working. In addition, the time management that you develop helps you a lot also, as well as getting to know more people who can help you when you have a problem, expanding your **network of contacts**.”*



TIME MANAGEMENT

Establish objectives and priorities, selecting and effectively distributing the time available.

This category received a degree of overall importance of 88.9%, which rises to 92.8% if it is separated from the online questionnaire (see later analysis).

*“Although taking into account that I train and study, **I manage and organize my time very well**. When I get home, I have to make food, eat, and come back to train and not make anyone wait. So it also give you commitment and motivation. And it also improves communication because when you run with a guide you have to do it even if track is thought of as an individual sport.”*



*“...I suppose that, for example, **I manage my time very well** due to playing sports and studying at the university, and I can **extrapolate this to a future work environment**. I also learn to have more patience and to be more assertive due to sports.”*



LEARNING CAPACITY

Self-assessment of needs for knowledge, adopting the necessary measures to acquire it and put it into practice.

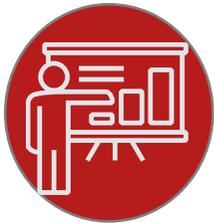
This category received a degree of overall importance of 88.8%, which rises to 93% if it is separated from the online questionnaire (see later analysis).

*“Well, physical abilities such as motor abilities, you learn to move faster. And also all kinds of social skills, such as teamwork. In addition, **you learn** to be more consistent and committed and later that will be good for you at work. Although I don’t think that sports are the cure to improve **employability**. **They could help**, but they would not be the most important factor to help you improve entrepreneurship.”*



4.3. Professional and Employability Competencies

“Learning capacity improves. If I go to class, maybe to study for an exam if I’ve been to class I don’t need to study too much, but if I don’t go to class it’s a lot harder.”



COMMUNICATION

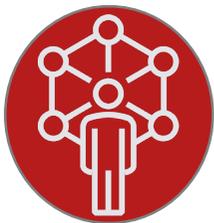
Transmission of ideas, information, and opinions in a voluntary, clear, and convincing manner.

This category received a degree of overall importance of 87.6%, which rises to 92.7% if it separated from the online questionnaire (see later analysis).

*“Sports have allowed me to get along better with other people and **improve communication**. They allow me to be **more uninhibited**, **I leave the embarrassment aside** and I am no longer afraid to speak in public. I also am more organized thanks to sports, I am more methodical and more organized, perhaps, than my friends that don’t do sports. In my case, I have improved a lot more in communication, because since I have hearing problems I’ve had to **adapt better to the environment** and **improve in communication** to be the level of my peers, and when I play a game I have to see what situation I’m in to better orient myself, to hear them better, and ultimately, communicate with them better.”*



*“...for example, teamwork, coordination with teammates, **improvement in communication and expression** because we deal with this a lot in basketball.”*



ADAPTABILITY

Ability to find and apply quick and effective responses to changing situations, environments, people, responsibilities, and tasks.

This category received a degree of overall importance of 87.4%, which rises to 90.9% if it is separated from the online questionnaire (see later analysis).

*“I believe that all of the experience that you are gaining will turn out **well for your life**. And I think it does help improve your **employability**.”*



*“Sports are a **reflection of life itself**. They promote sacrifice, perseverance, resilience in the face of failure, they provide **adaptive resources** to interpret the competitive framework well... it seems to me that sports promote all skills. But not by themselves, it has to be true practice of sports, well-directed and well-advised.”*



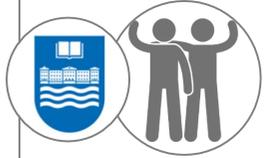
PROBLEM-SOLVING

Recognize, describe, and analyze the elements of a problem to devise strategies that lead to a proven solution.

This category received a degree of overall importance of 84.2%, which rises to 87.6% if it is separated from the online questionnaire (see later analysis).

4.3. Professional and Employability Competencies

"It depends on the sport, but yes, generally they help you improve a series a skills such as **problem-solving** and everything that goes along with that. For example, if I'm going to compete somewhere and I know a teammate from Madrid whose father is the director of a school, then I can probably stand out more easily there, too."



"All that is **soft-skills**, the development of these skills such as problem-solving, empathy, taking risks. All those skills that **are assumed to be learned through the university curriculum** but then in reality are those provided by sports and that are perfectly **transferable to work environments**."



"If I were a businessman and had to hire a person with a disability who did sports during the university stage, I would very much take that into consideration. As I would emphasize skills such as tenacity, commitment, temper. **Facing conflict situations** both in individual and team sports, as well as the consistency itself of practicing sports, are values that any employer would have to motivate, and then another thing, recognizing the will of that person makes that same person acquire a strength that will be of value in any field."



INITIATIVE

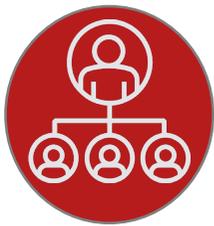
Ability to act proactively in certain situations.

This category received a degree of overall importance of 83.3%, which rises slightly to 85.6% if it is separated from the online questionnaire (see later analysis).

"For example, **initiative**, being organized because you don't have much time. This is a skill that not many people have and that sports gives to you because if you don't do it well, things will go very badly for you in sports or for your studies."



"Seriousness. Commitment to say, 'hey, you have do do it because that's how it is and I have to send it such day,' besides I think that it makes it easier for you to communicate or to be more assertive to **tell a colleague something** that does not seem right..."



NETWORKING

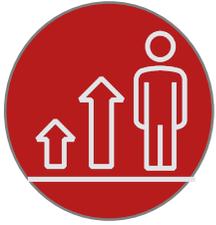
Ability to expand one's network of professional contacts to increase the chances of finding a job.

This category received a degree of overall importance of 83.2%, which rises to 88.6% if it is separated from the only questionnaire (see later analysis).

"Above all, the camaraderie, putting yourself in someone else's shoes and being able to help those around you. You create values that serve you when working. In addition, the time management that you develop helps you a lot as well as getting to know more **people that can help you when you have a problem, you expand your network of contacts**."



4.3. Professional and Employability Competencies

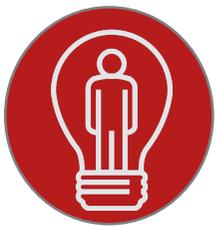


LEADERSHIP

Intention to assume a role as leader of a group or work team; predisposition and ability to properly and effectively guide the performance of the group or team towards the established goals.

This category received a degree of overall importance of 79%, which rises to 83.1% if it is separated from the online questionnaire (see later analysis).

*"I believe that through sports people can gain confidence that you can later **pass on to others**. Many people with disabilities do not interact with people and that can make you not hide so much or have negative thoughts because it is true that sports bring you many positive things."*



INNOVATION

Performing new tasks in order to design and create new processes with higher levels of profitability and efficiency.

This category was the least considered of all those included ad hoc in the interviews and online questionnaire, with a degree of overall importance of 73%, which rises slightly to 74.7% if it is separated from the online questionnaire (see later analysis). Despite this consideration, we have not found any clear content findings in this regard, although some new employability competencies are pointed in section 4.3.3.

4.3.2. ANALYSIS OF PROFESSIONAL COMPETENCIES BY DISABILITY GROUPS (Online Questionnaire)

Figure 38 shows the analysis conducted for the different disability groups of the university students who completed the online questionnaire. We can verify great symmetry in the importance given (from 1 to 4 points) for the 10 professional and employability competencies gathered, ranging from overall ratings of 3.1 (Time Management) to 2.6 (Leadership and Networking). The lower ratings obtained for Leadership and Adaptability should be highlighted, where students with auditory and psychosocial disabilities rated slightly less than students with physical or visual disabilities.

4.3. Professional and Employability Competencies

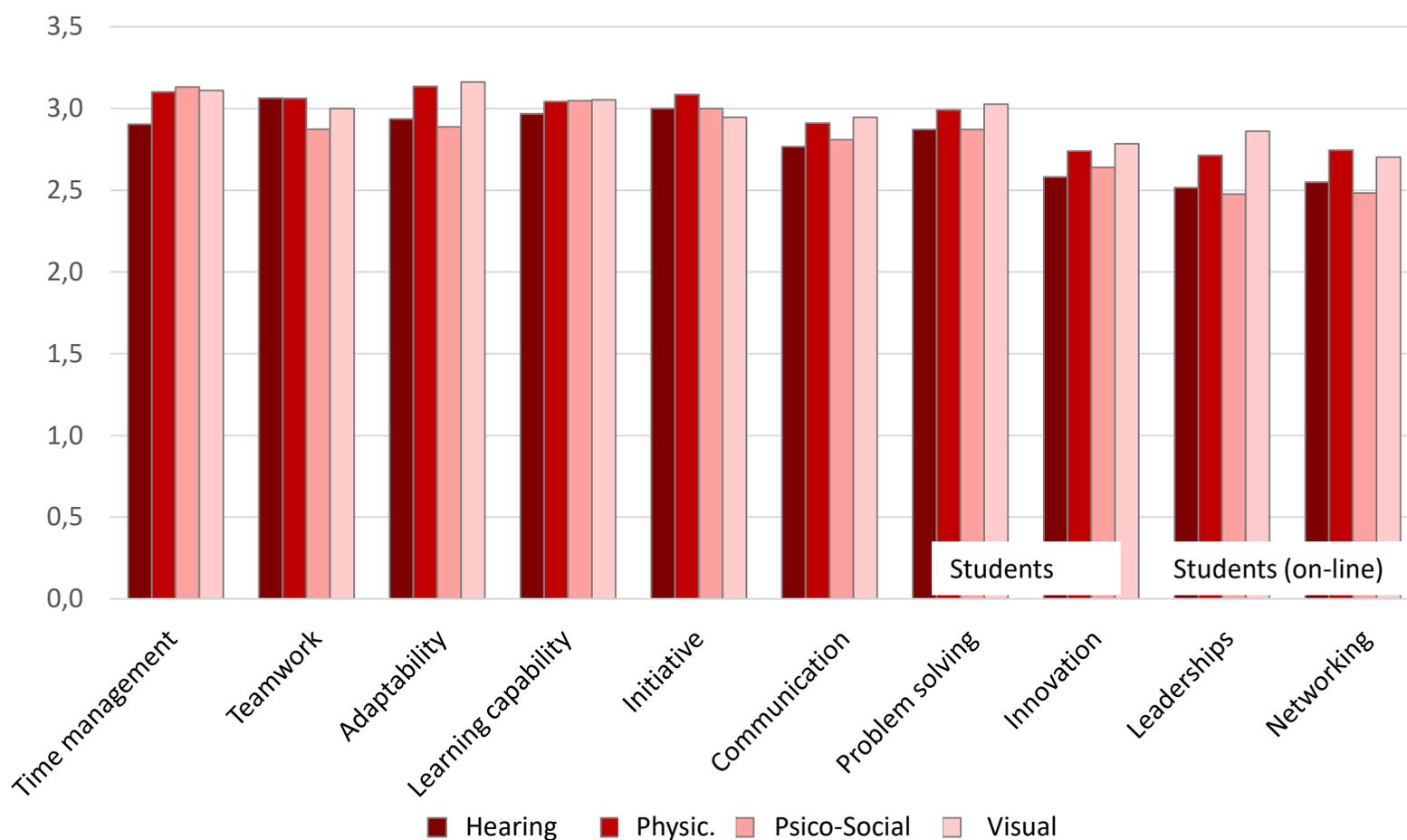


Figure 38. Importance given to professional competencies that can be enhanced with the practice of sports by students with disabilities on the online questionnaire.

4.3.3. OTHER COMPETENCIES IDENTIFIED FROM THE CONTENT ANALYSIS OF FACE-TO-FACE INTERVIEWS

In this section we will list a series of new competencies (n=12) identified in the content analysis from the face-to-face interviews conducted with managers and/or specialists from Disability Support Services, Physical Activity and Sports Services, and students with disabilities.



ASSERTIVENESS

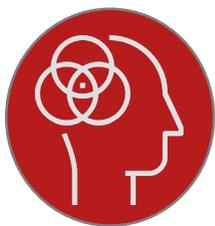
Ability express our desires in a kind, frank, open, direct, and adequate manner, managing to say what we want without threatening others.

4.3. Professional and Employability Competencies

"Seriousness. Commitment to say, 'hey, you have to do it because that's how it is and I have to send it such day,' besides I think that it makes it easier to communicate or to be more **assertive** to tell a colleague something that does not seem right. I think that self-esteem also improves because you feel better about yourself."



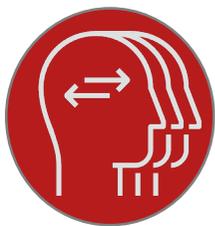
"...I suppose that, for example, I manage my time very well thanks to sports and studying at the university, and I can extrapolate this to a future work environment. I also learn to have more patience and to be **more assertive due to sports.**"



SELF-EFFICACY

Confidence in one's ability to achieve intended results.

"As for a **job interview**, sports can help me because if you have practice sports you should have some psychological advantages such as **self-efficacy** that will prevent you from fearing certain situations or fearing questions like, 'can you do this?' All of these advantages that the abilities that sports give you are going to give you more security and will **help you remove more barriers.**"



SELF-ESTEEM

Set of perceptions, thoughts, assessments, feelings, and tendencies of behavior directed towards ourselves, towards our way of being, and towards the features of our body and our personality.

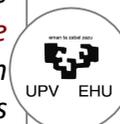
"**Self-esteem** above all. Because you are relating to people and sometimes that makes the **fears and stereotypes** that you had initially go away. And I think they can also help to improve the student's employability if you are used to doing teamwork and group activities, and in the end these skills you have to develop in a work environment and for daily life activities."



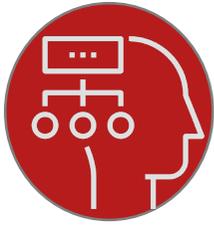
"I think it helps them in terms of cross-disciplinary variables such as **self-esteem** and **motivation**. **Disability** is a group that is **very affected by self-esteem** and from sports you can promote all this as it gives them **more security**. It also gives them the ability to face challenges, the ability to solve problems... All this is totally related."



"**Self-esteem** above all, the **confidence** of knowing that I can do something. Being in shape also helps a lot and the consistency of sports gives you a lot of discipline. I **believe that an employer would take notice of a student who has been an athlete**, and especially is the student has been in championships and Olympics, since that demonstrates commitment, consistency, reaching the goals you set, your objectives, being positive... it is very noticeable."



4.3. Professional and Employability Competencies



AUTONOMY

Ability to give oneself rules or to make decisions with intervention or external influence.

*“What I believe is that sports makes you **more autonomous** and more **self-sufficient**. Having some motor skills and some improved social skills from doing sports makes you more active in society and gives you an advantage on people who do not do sports. And this gives you abilities in everything, so in the workplace, too.”*



COMPETITIVENESS

Ability that a person has to achieve their objectives with regard to others or with oneself.

*“I believe that **competitiveness**. I am extremely competitive and it’s something that I believe is **very good when you are trying to sell yourself**. For example, recently I went to do an interview for a very famous sports company and at that moment I was aware that I was capable of eating up the interviewer and whoever was in front of me. I’m competitive and I’m able to demonstrate this competitiveness, and they also told me that with this attitude I could get whatever I wanted.”*



TENACITY

Steadfastness and perseverance in the execution of purposes. It is the willingness to stand firm in the pursuit of actions and undertakings in a consistent or continuous manner until the objective is achieved.

*“Lately multinational **companies** tend to **request people who have practiced sports at a competitive level** in their requirements. Because of the component of effort, **consistency**, and problem-solving is higher. People who practice sports tend to more methodical and are accustomed to carrying out routines. After all, whether it’s a person with a disability or not, doing sports will give you these much needed values.”*



*“To be able to have results in competitive sports there are basic skills like **consistency**, persistence, discipline, effort, sacrifice, teamwork, and setting goals and objectives. All this is perfectly applicable in real life and work life.”*



*“I believe that does sports brings benefits at all levels. The psychological level, physical, etc. It helps you to be more **consistent**, to have a routine and abide by it... it’s for everyone and more for people with some type of disability. I think sometimes not being able to do some things that other people can do, the world of sports gives you a broader perspective and that can be satisfying and can replace that barrier that we initially have in mind.”*



4.3. Professional and Employability Competencies



MOTIVATION

Internal state that activates, directs, and maintains behavior.

"I believe that it can help them and it can be good for *motivating them*, for gaining self-esteem, gaining self-confidence, and it could be *very useful for their studies and later in working life.*"



"For example, the ability to overcome, sacrifice, teamwork, overcoming obstacles, commitment, *motivation...* I believe that this is very important for *improving the employability* of the student."



EMPATHY

Affective participation of a person in an external reality, generally in the feelings of another person.

"Sociability, being more *empathetic* with people."



"All that is *soft-skills*, the development of these skills such as problem-solving, empathy, taking risks. All those skills that *are assumed to be learned through the university curriculum* but then in reality are those provided by sports and that are perfectly *transferable to work environments.*"



DISCIPLINE

Set of rules or standards whose compliance consistently leads to a certain result.

"Discipline, I believe that *discipline is very important in any job*. Being responsible, etc. So to do sports and to do well you have to sleep when it's time, eat what you need to eat, pasta the night before playing, etc. Manage your time very well also. That is going to help you in life to know that you *have to be responsible.*"



"Perhaps if I go to an *interview* and say that I do sports, it's a good sign. Because the interviewer can think that I'm *consistent, disciplined, etc.*"



4.3. Professional and Employability Competencies



RESILIENCE

Ability to adapt positively to adverse situations.

“Well, doing sports makes you a little more clear mentally, complying with rules, working under pressure, knowing that *sometimes you win and sometimes you lose...* And all this is very important at work.”



“Sports are a reflection of life itself. They promote sacrifice, perseverance, *resilience in the face of failure*, they provide adaptive resources to interpret the competitive framework well... it seems to me that sports promote all skills. But not by themselves, it has to be true practice of sports, well-directed and well-advised.”



SACRIFICE

Effort, action, or work that a person imposes on oneself in order to obtain or earn something or for the benefit of someone.

“To be able to have results in competitive sports there are basic skills like consistency, persistence, *discipline, effort, sacrifice, teamwork*, and setting goals and objectives. All this is perfectly applicable in real life and work life.”



ORGANIZATION

Ability to effectively determine goals and priorities for a task/area/project, stipulating actions, deadlines, and the resources required. It includes the articulation of mechanisms for follow-up and verification of objectives.

“...when I work with students how have some difficulty, *sports sometimes begins to regulate their system and all of the student's internal organization*. You start to create habits for rest, schedules, food... all this is done through sports. Because many times people are off balance with their studies and need something like sports that helps you *stabilize and organize everything*, even leisure. Sports are vital for people who know what they want and to be specific, to make an action plan, achieve their objectives, take on challenges and responsibilities, etc.”



“Above all, the matter of *organization*. And you acquire extra skills. For example, when going to a *job interview*, I, for example, have given talks at institutes and the embarrassment of public speaking has disappeared, especially in that aspect. There are people who are afraid to speak in public and I think that I have this social practice due to doing sports.”



4.3. Professional and Employability Competencies

4.3.4. PERSONAL CHARACTERISTICS AMENABLE TO IMPROVEMENT WITH PRACTICE OF PHYSICAL AND SPORTS ACTIVITY

To conclude this Chapter, we present below the results obtained from students with disabilities who completed the online questionnaire, who were asked about their degree of agreement regarding the positive impact that the practice of physical and sports activity could have on certain **personal characteristics**. The majority of these characteristics have a close relationship with the professional and employability competencies discussed previously, which allows us to triangulate the finding from the face-to-face interviews presented in the previous part, 4.3.2.

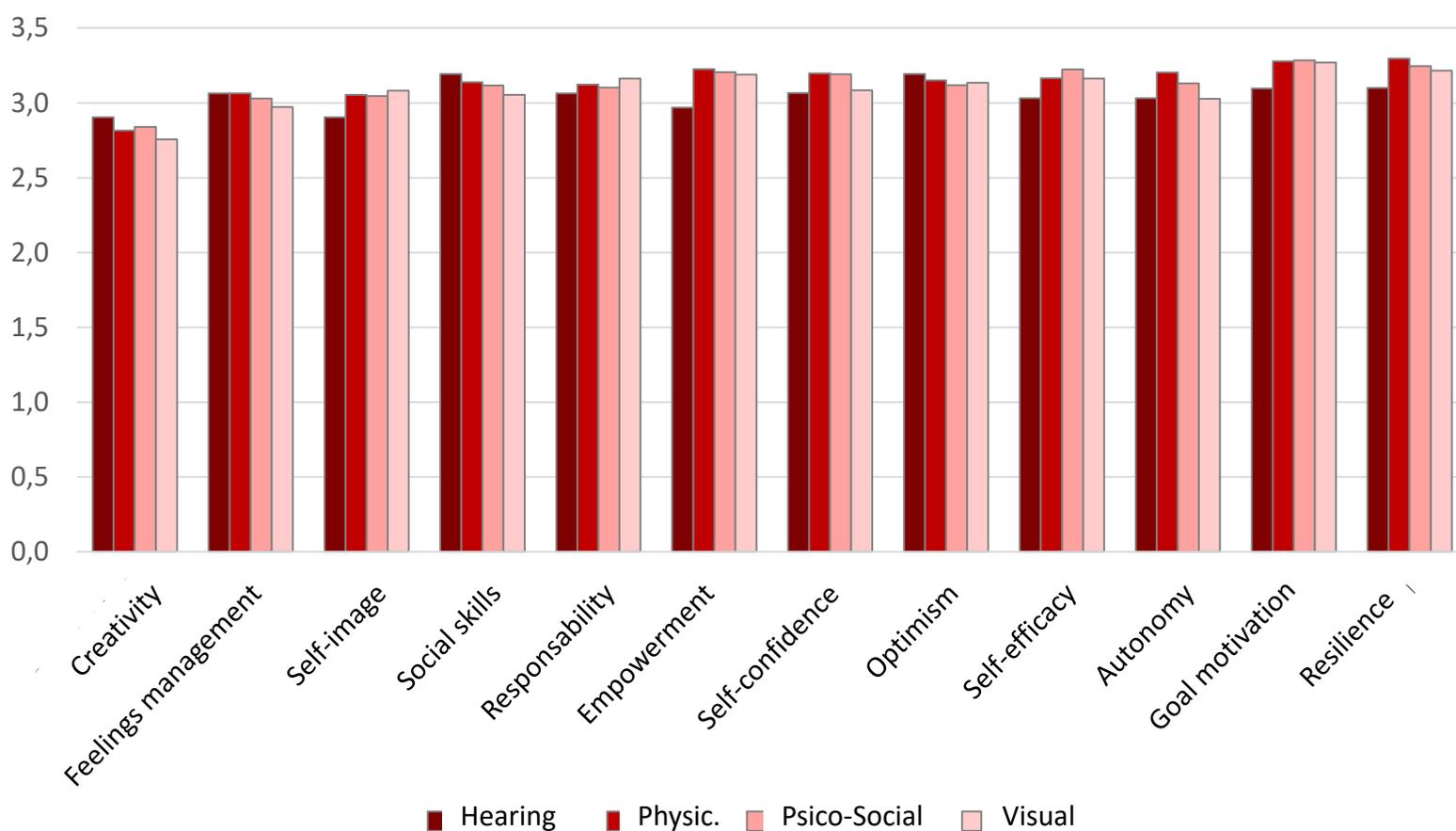


Figure 39. Importance given to the personal characteristics that can be enhanced with the practice of sports by students with disabilities on the online questionnaire.

Figure 39 shows that **Resilience** and **Achievement Motivation** are the two most valued characteristics overall, that is, the average of the four disability groups, with an average rating of 3.2 out of a maximum of 4 points. **Autonomy**, **Self-Efficacy**, **Optimism**, **Security**, **Empowerment**, **Responsibility**, and **Social Skills** follow with 3.1, with discussion of these on previous pages with verbal testimonies about their importance and relationship with employability. In third place, **Self-Image** and **Emotional Management** are situated with 3 average points, and **Creativity** closes the series with an average of 2.8 points.

4.3. Professional and Employability Competencies

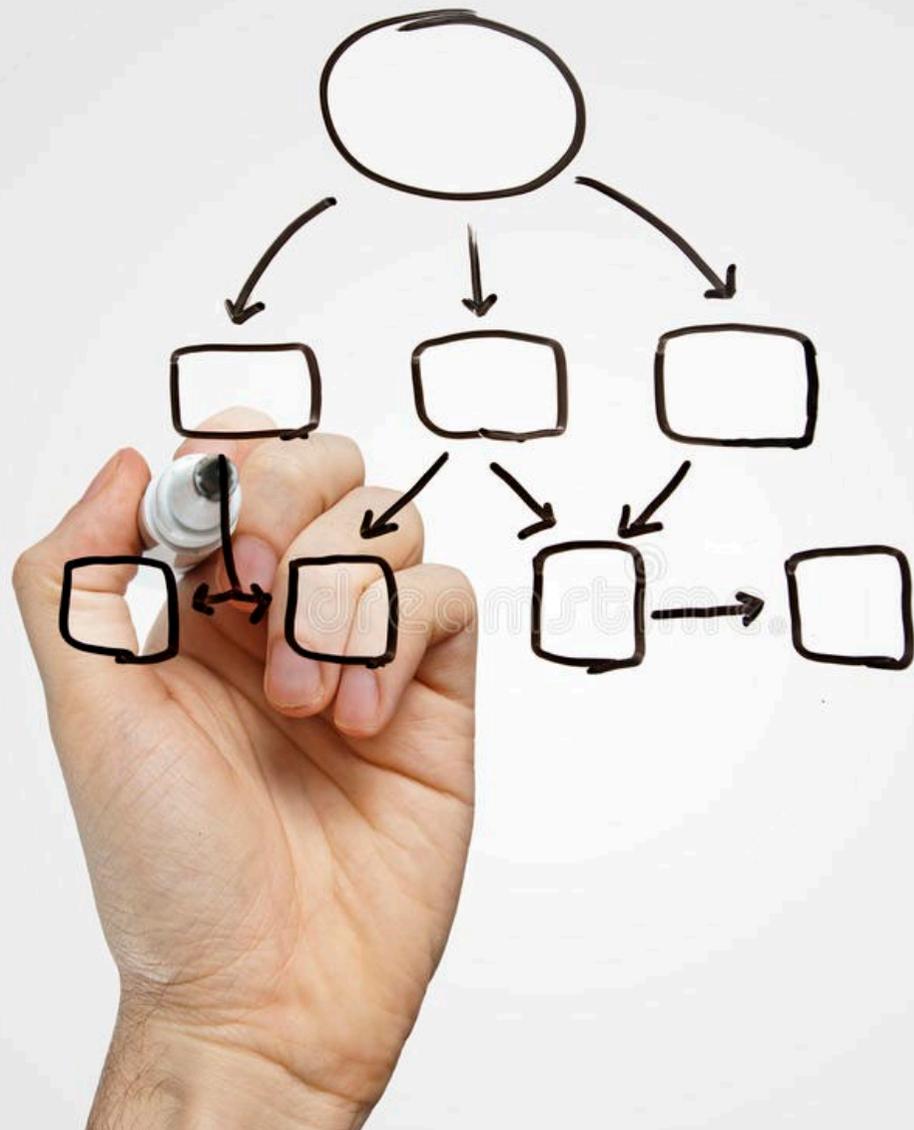
We can also note that the result bars are not as consistent as with previous occasions, although they move between average ranges of 2.8 and 3.3 average points, so all these characteristics seem to have their own relative importance. If we analyze these variance, we can point out the behavior students with auditory disability, who rated slightly lower for Motivation Achievement, Self-Efficacy, Empowerment, and Self-Image when compared to the rest of the groups of students with disabilities. With regard to other disability groups, we can see that the visual disability group rated somewhat lower in Autonomy and Security, perhaps due to their limitations (e.g., blindness, use of a cane) in certain activities or support needs (e.g., guides).





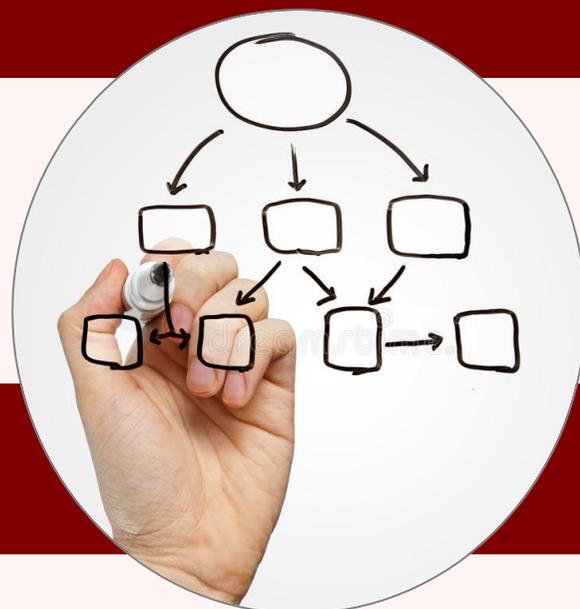
Chapter 5

Conclusions and Action Plan



Chapter 5

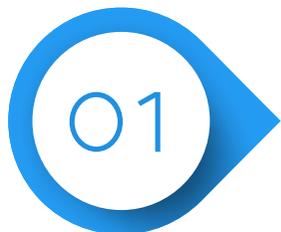
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5. Conclusions and Action Plan

Based on the results obtained, the current situation regarding physical activity and sports for university with disabilities, the various proposals that have been made in the results chapter, and evidence from the current literature, we have articulated a total of ELEVEN points of action.



Increase the Offerings of Activities and Opportunities for Participation

- 01.1. Guarantee and offer** of practice that responds to the right of the SWD to participate in this facet of university life like and nay other member of that community.
- 01.2.** Ensure the **participation and inclusion** of SWD in the general offering of physical and sports activity for Universities. In this sense, the inclusion of sports modalities (e.g., Rector’s Trophy) that have an inclusive nature is recommended (e.g. colpbol, kin-ball), diversifying the conventional, existing offerings.
- 01.3.** Make a **realistic offering** according to the available human and material resources.
- 01.4.** Promote an offering of physical and sports activity services based on the tenets of **Universal Design**.
- 01.5. Study the potential demand** of SWD, making them part of the design of the offerings and/or implementation of the activities. Online surveys could be conducted, in collaboration with Disability Support Services, in order **to find out the interests** of the students, as monitoring the activity to stabilize offerings in the medium-long term is important.
- 01.6.** Analyze the offerings of Universities with **successful practices** for the matter (i.e. examples of best practice), in order to create an offering that increases spirally and goes from the local to the regional level and, in the long term, to the national and international level.
- 01.7.** Include the offering of specific and/or inclusive physical activity practice (e.g. in Catalogs or Directories for activities) as an added value to the University services, which could be factor that helps with the **recruitment of future students**.
- 01.8.** Make a **specific sports** offering (e.g. Boccia, goalball) only in those cases where there could be a minimum demand. However, this can be promoted through the opening of university spaces to sports clubs for people with disabilities, applying a flexible model of inclusion, or by conducting activities in collaboration with other Universities in the area.
- 01.9.** Consider the university sports model in different manifestations and purposes of the same, which include: i) **Health**, attempting to reach the entire university community to obtain the benefits provided by physical activity (e.g., accessible gyms, directed activities which allow for the participation of people with disabilities); ii) **Leisure**, where the competition factor is not the most important and with emphasis on increasing social relations (e.g., gamification activities between classes, groups, schools, etc.), and iii) **Competition** (see below).

5. Conclusions and Action Plan



Agree on a Local, Regional, and National Strategy for Competitive University Sports

- 02.1.** Explore the possibilities that a **flexible competition model** (for specific to regular sports) can provide to respond to the interests and needs of SWD. In this respect, valuing the opportunities provided by **inclusive sports**.
- 02.2.** Encourage and promote the participation of university students with disabilities in **competitive university sports** at four levels: i) Local (Rector's Trophy), ii) Regional (CADU: University Championships for University Sports), iii) National (CEU: Spanish University Championships), and iv) International (EUSA: European University Sports Association / FISU: International University Sports Federation). Due to the practical non-existence currently for these four levels, it is necessary to agree on an offering that could guarantee the logical process of **sports development** as competition demands increase.
- 02.3.** The inclusion of **individual sports** should be associated with the knowledge of sports classes and/or the impact of the disability on the sports performance of each modality, and measures that facilitate inclusion of other athletes without disabilities (e.g., handicaps for time, distance, or scoring) can be applied.
- 02.4.** The inclusion of specific **group sports** is made more complex by the number of SWD that it requires, recommending the application as "reverse inclusion" (e.g. putting on a mask to play goalball, playing basketball while sitting on a wheelchair) or inclusive (a relay team where one or more of the relay participants has a disability).
- 02.5.** **Collaborate among Universities**, preferably those from the nearby geographical area, so that new and increased opportunities for participation and competition can be created (e.g., clinics, friendly tournaments, teambuilding days) as a prelude to CADU or to participate jointly in the CEU.
- 02.6.** Intensify the collaboration between the **National Sports Council** and **CRUE Student Affairs Sports**, involving entities related to disability that allow for the increase of practice opportunities (project promoters, scholarships, etc.). In this sense, it is necessary to reactivate and/or delimit the functions of the **Spanish University Sports Committee** (CEDU), chaired by the National Sports Council itself, an entity with competencies in matters of university sports under the current Sports Law.
- 02.7.** Guarantee and stabilize **affirmative action measures** or encouragement for the incorporation of athletes with disabilities in the CEU (e.g., subsidize the classification of a venue if it includes sports modalities for people with disabilities).

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- 02.8. Support athletes** with possibilities of sports development up to high competition or high performance. For this, assigning mentors or tutors to help balance academic and sports life, and the collaboration of the university institution with entities that financially support these athletes (Opportunity to Talent from the ONCE Foundation, ADOP Plan from the Spanish Paralympic Committee, FER Project from the Trinidad Alfonso Foundation, etc.) is recommended.
- 02.9.** Explore the possibilities of **sponsorship** of high performance athletes, especially for those minority sports like Paralympic sports, where sporting success can be associated with the image of the University.



Facilitate Access to and the Dissemination of Information

- 03.1.** Articulate a **global communication strategy** about the offering of physical or sports activities that could be beneficial to SWD. This strategy could involve University Communication Services and their own media (Radio, TV, Social Media Networks...) as well as other external collaborators (e.g., local and regional communications media).
- 03.2.** Carry out **promotional campaigns** that emphasize the benefits of practicing physical and sports activity (i.e., intrinsic motivation) over the incentives or rewards that could be articulated in this regard (i.e., extrinsic motivation).
- 03.3. Feature** the university **community** with disabilities in campaigns and promotional tools, with emphasis on the inclusive model and normalization.
- 03.4.** Ensure the **correct use of terminology**, in alignment with the tenets from the Convention on the Rights of Persons with Disabilities.
- 03.5.** Include the **sports offerings** for SWD as another of the University's sports offerings, or convey and guarantee to these students that they will be given an adequate response to their needs for access and practice.
- 03.6.** Conduct **awareness and/or promotion sessions** in collaboration with both Services from the university itself as well as external entities. It is recommended that this type of Session can go beyond commemorating the International Day of Disability so that the progressive entry of people with disabilities into practice will contribute to a standardized and inclusive sports practice.

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University Policies and Competencies in Physical Activity and Sports Matters for Students with Disabilities

- 04.1. Create **informational documents** or **workshops** with Government teams or Service Managers to make public the importance of the matter, emphasizing awareness and contact with the group themselves (e.g., talks/discussions with Paralympic athletes)
- 04.2. Reflect on the **university sports model** desired to be promoted by the university institution itself, attempting to respond to the different levels of health, leisure, and competition itself.
- 04.3. Create a **collaborative work network** with other university services in the field, similar to UNIDIS or SAPDU for Disability Support Services.
- 04.4. Incorporate the topic of physical and sports activity for students with disabilities in the **CRUE** Student Affairs **agenda**, which may be a topic to be addressed in their work groups.
- 04.5. Articulate **action protocols** that involve effective and fluid collaboration between Disability Support Services and Physical Activity and Sports Services.
- 04.6. Collaborate with **data management** services (e.g., school secretariats, campus management centers, computer services, etc.) to be able to manage databases on the interests of SWD for the issue of concern to us and always uphold the provisions of the current Data Protection Laws.
- 05.3. Identify **connection nodes** between the interests and needs of SWD with the current offering, attempting to detect the potential demand in the initial stages of their university career, for example:
 - Asking during enrollment about their interest in practicing sports.
 - Using online questionnaires to find out about their interests (e.g., at registration, during welcome sessions, etc.)
 - During the initial interview with Disability Support Services.



Training of Managers and Professional in Connection with University Sports for People with Disabilities

- 05.1. Ensure that there is **specialized staff with knowledge in the subject** in each Physical Activity and Sports Service, that is, who understand the adaptations and potential needs of large groups of people with disabilities (e.g., action guidelines, recommendations, flexibility and adequacy of the the sports offering, safety instructions, etc.).

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- 05.2. Create a **Guidebook** to make the university sports offering accessible to students with disabilities.
- 05.3. Plan **training actions** at the local (individual university) or regional level (universities with geographical proximity) where the acquisition of relevant **knowledge** in the subject is combined with onsite **guidance** to adapt or optimize the available resources/offering.
- 05.4. Understand the basics of the disability **classifications**, a unique and distinctive element of sports for people with disabilities. This can help with the articulation of different forms of competitive sports at any of the levels previously discussed.
- 05.5. Collaborate with the Degrees in Physical Activity and Sports, if any, in order to allocate human resources (e.g., curricular practicums, paid internal practicums, etc.) for this task, improving **personalized attention** or the **ratios** of work groups.
- 05.6. Set up a **guidance or consulting service** with experts to help the services to implement actions in the matter.



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Ensure Compliance with Regulations and Responsiveness to Needs for Accessibility Issues

- 06.1. Proactively conduct a **study on accessibility** for university sports facilities, anticipating the potential demand, and from which any user could benefit by applying **universal design** principles.
- 06.2. Implement **healthy, accessible routes** for university campuses so as to encourage the practice of informal physical activity (e.g., routes by targets, by difficulty, alternatives to public or private transportation, gamification with mobile apps or GPS, etc.)
- 06.3. Joint action between Disability Support Services and Physical Activity and Sports Services when there is a need to **adapt access** to or **mobility** through of sports facilities.
- 06.4. Participate in university Infrastructure Services actions when there is new construction, remodeling, or upgrading of buildings and premises, providing the perspective of a potential user with a disability. In this sense, it is advisable to participate in inspection processes and risk prevention protocols.



Increase Possibilities of Access and Use of Material Required for Sports Practice

- 07.1. **Acquisition of own material** and/or in collaboration between Services, Departments, or Schools, in a way that facilitates and encourages its use for various purposes: teaching, sports, dissemination, etc.
- 07.2. Enhance and ensure the **use of materials between services** of the University itself.
- 07.3. **Collaborate with other Universities** to test a certain material that, due to its high cost, would not be possible to purchase it initially. Once it is tested and its purchase is advised, administrative procedures can be proceeded with to enable the purchase.
- 07.4. Funding or sponsorship of external entities to the university institution to access a **bank of support products** for the practice of sports, similar to those existing for studies.
- 07.5. **Collaborate with Federations and Associations** for mutual loans of sports material so that the University is open to the community in which it is located.
- 07.6. Set up **material scholarships** for those students with disabilities who could perform a competitive sports activity linked to their university career (e.g., represent the University at national or international competitions).

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Provide Sufficient Human Resources

- 08.1. Strengthen specific **volunteering programs**, especially for those students with high support needs (e.g., in the locker room, to play Boccia, etc.). The creation of or access to a volunteer exchange is recommended, with or without incentives of recognition of academic credits.
- 08.2. Create a **catalog of activities** for volunteers for the subject, being able to identify possible buddies who accompany the student with a disability over a sustained period for the practice of sports (e.g., guide for track, partner for padel/tennis, etc.)
- 08.3. Do **volunteer training** for physical or sports activities that involve people with disabilities (e.g., CADU/CEU organization) or for dissemination (e.g., awareness sessions, outreach, etc.)
- 08.4. Mobilize **volunteers with appropriate basic training** or training related to the practice of physical and sports activities for people with disabilities, such as students from Degrees in Sciences of Physical Activity and Sports, Physiotherapy, or Occupational Therapy.
- 08.5. Offer **curricular and extracurricular practicums** for students with the profile indicated in the previous point.
- 08.6. Set up **specific scholarships** for collaborating students in those cases in which the participation of a permanent support for the practice of sports is required.



Set Up Affirmative Action Measures for the Provision of Supports and Resources

- 09.1. Increase the signing of **bilateral agreements** between the University institution and the surrounding entities, or national entities, that could contribute to the promotion and practice of physical and sports activity by SWD.
- 09.2. **Streamline the network of agreements and contacts** to provide agile and personalized solutions for the needs of SWD in this area.
- 09.3. Ensure the **assumption of support roles** for students with greater support needs, for a partner when practicing in an inclusive manner, or as a participant in the case of reverse inclusion or for the practice of a specific sport.

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- 09.4. **Increase the presence** of sports practiced by people with disabilities, in one or more of its aspects of the proposed inclusion continuum, **at the CADU/CEU championships**, so that SWD can also access the recognition of credits stipulated by the current legislation for participation in sports activities. Therefore, greater collaboration between the Territorial and National University Sports Councils is required in the matter of concern to us.
- 09.5. Create a **scholarship system** (i.e., pyramidal) that could range from pre-entry to the University (e.g., scholarships to sports talent) to high competition or high performance so that they are stable throughout their sports career and university studies.
- 09.6. **Collaboration among staff** from administration, services, and instructors for the balance of academic and sports activity for those athletes with disabilities who participate in high competition or at a high level.
- 09.7. Make a **global investment** or **strategic plan** in terms of physical and sports activity for SWD so that the offer is dignified.
- 09.8. **Accrue funding** from sponsorship and/or patronage in the area, especially with regard to the corporate social responsibility practices of companies.



Facilitate the Balance of Academic and Sports Activity

- 10.1. Consider the different perceptions given by the stakeholders, Services and Students, about the barriers for sports practice during the university stage. A **fluid dialogue** is required between them to adjust these perceptions to reality and to avoid having some activities or programs not moving forward due to discrepancies of this nature.
- 10.2. Create **competition calendars** for the Rector's Trophy and CADU considering the academic calendar for the current school year and in collaboration with the Universities from the Territorial Council.
- 10.3. For those students who compete in high competition or high performance, consider the competition calendars at the regional, national, and international levels, if they exist, in order to be able to manage authorizations for exam dates, flexibility for assignment due dates, etc. with sufficient notice.
- 10.4. Create a **sports mentor or tutor** who can mediate for the possible conflicts of balancing academic and sports life for SWD.

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Contribution of the Practice of Physical Activity and Sports to the Development of Employability Competencies

- 11.1. High consideration has been identified relating to the importance given to the practice of physical activity and sports for the development of professional and employability competencies, providing a series of **soft skills** of potential interest for employers.
- 11.2. The students interviewed have contributed a series of competencies and personal characteristics of interest, in addition to perceiving the **potential benefits** of sports practice in relation to their future job placement or employability.
- 11.3. It is recommended to involve **Employment Services** in the creation of dynamics and workshops where sports can have a place and prominence, especially based on the values that have been found to be reported.





References



References

- Almorza, D., Yébenes, A., Bablé, J.A., Rivas, R., Ronquete, J., y Casado, I. (2011). *Estudio diagnóstico del Deporte Universitario Español*. Cádiz: Universidad de Cádiz.
- Armstrong, M., Morris, C., Abraham, C., and Tarrant, M. (2017). Interventions utilising contact with people with disabilities to improve children's attitudes towards disability: A systematic review and meta-analysis. *Disability and Health Journal*, 10(1), 11-22. Doi: [10.1016/j.dhjo.2016.10.003](https://doi.org/10.1016/j.dhjo.2016.10.003).
- Bandura, A. (1994). *Self-efficacy*. En V. S. Ramachaudran (Ed.), *Encyclopedia of human behavior* (pp. 71-81). New York, United States: Academic Press.
- Beamer, J. A., and Yun, J. (2014). Physical educators' beliefs and self-reported behaviors toward including students with autism spectrum disorder. *Adapted Physical Activity Quarterly*, 31(4), 362-376. Doi: [10.1123/apaq.2014-0134](https://doi.org/10.1123/apaq.2014-0134).
- Bodde, A. E., and Seo, D. C. (2009). A review of social and environmental barriers to physical activity for adults with intellectual disabilities. *Disability and Health Journal*, 2(2), 57-66. doi: [10.1016/j.dhjo.2008.11.004](https://doi.org/10.1016/j.dhjo.2008.11.004).
- Bragaru, M., Van Wilgen, C. P., Geertzen, J. H., Ruijs, S. G., Dijkstra, P. U., y Dekker, R. (2013). Barriers and facilitators of participation in sports: a qualitative study on Dutch individuals with lower limb amputation. *PLoS One*, 8(3), e59881. doi: [10.1371/journal.pone.0059881](https://doi.org/10.1371/journal.pone.0059881).
- Buffart, L. M., Westendorp, T., Van Den Berg-Emons, R. J., Stam, H. J., and Roebroek, M. E. (2009). Perceived barriers to and facilitators of physical activity in young adults with childhood-onset physical disabilities. *Journal of Rehabilitation Medicine*, 41(11), 881-885. doi: [10.2340/16501977-0420](https://doi.org/10.2340/16501977-0420).
- Campos, J., Llopis, R., Torregrosa, M. A., y Badenes, J. (2016). *El deporte adaptado en la universidad Española*. Valencia: Universitat de València.
- Colletto, M., and Rodriguez, N. (2017). Routine Yoga practice impacts whole body protein utilization in healthy women. *Journal of Aging and Physical Activity*, 26(1), 68-74. doi: [10.1123/japa.2016-0085](https://doi.org/10.1123/japa.2016-0085).
- Collier, R. (2012). Person-first language: Noble intent but to what effect? *Canadian Medical Association Journal*, 184(18), 1977-1978. doi: 10.1503/cmaj.109-4319.
- Consejo Superior de Deportes -CSD- (2016). *Plan 2020 de apoyo al Deporte Base*. En: <http://www.csd.gob.es/csd/promocion/plan-2020-de-apoyo-al-deporte-base/>
- De Boer, A., Pijl, S., Post, W., and Minnaert, A. (2011). Which variables relate to the attitudes of teachers, parents and peers towards students with special education needs in regular education? *Educational Needs*, 38(4), 433-448. doi: [10.1080/03055698.2011.643109](https://doi.org/10.1080/03055698.2011.643109).
- Fundación Universia (2016). *III Estudio Universidad y Discapacidad*. En: http://www.fundacionuniversia.net/wp-content/uploads/2017/02/Fundacion_IIIEstudio_digital_accesible.pdf.
- Fundación Universia (2017). *Guía de atención a la discapacidad en la Universidad 2017*. En: http://www.fundacionuniversia.net/wp-content/uploads/2017/05/Guia_Atencion_Discapacidad_2017_ACCESIBLE.pdf
- Griffin, M., Smith, B., Howe, P. D., and Phoenix, C. (2016). Physical activity among older adults with visual impairment: A scoping review. *Kinesiology Review*, 5(2), 142-152. doi: [10.1123/kr.2015-0002](https://doi.org/10.1123/kr.2015-0002).

References

- Griffiths, K., Bullough, S., Shibli, S., and Wilson, J. (2017). The impact of engagement in sport on graduate employability: implications for higher education policy and practice. *International Journal of Sport Policy and Politics*, 9(3), 431-451. doi: [10.1080/19406940.2017.1359648](https://doi.org/10.1080/19406940.2017.1359648).
- Hammel, J., Magasi, S., Heinemann, A., Whiteneck, G., Bogner, J., and Rodriguez, E. (2008). What does participation mean? An insider perspective from people with disabilities. *Disability & Rehabilitation*, 30(19), 1445-1460. Doi: [10.1080/09638280701625534](https://doi.org/10.1080/09638280701625534).
- Instrumento de Ratificación de la Convención sobre los derechos de las personas con discapacidad, hecho en Nueva York el 13 de diciembre de 2006. Boletín Oficial del Estado. Madrid, 21 abril de 2008.
- Jaarsma, E. A., Dekker, R., Koopmans, S. A., Dijkstra, P. U., and Geertzen, J. H. (2014). Barriers to and facilitators of sports participation in people with visual impairments. *Adapted Physical Activity Quarterly*, 31(3), 240-264. doi: [10.1123/2013-0119](https://doi.org/10.1123/2013-0119).
- Keawutan, P., Bell, K. L., Oftedal, S., Ware, R. S., Stevenson, R. D., Davies, P. S., and Boyd, R. N. (2017). Longitudinal physical activity and sedentary behaviour in preschool-aged children with cerebral palsy across all functional levels. *Developmental Medicine & Child Neurology*, 59(8), 852-857. doi: [10.1111/dmcn.13439](https://doi.org/10.1111/dmcn.13439).
- Khan, M. Y., Jamil, A., Khan, U. A., and Kareem, U. (2012). Association between participation in sports and academic achievement of college students. *International Journal of Academic Research in Business and Social Sciences*, 2(8), 419-431.
- Kozub, F. M., and Lienert, C. (2003). Attitudes toward teaching children with disabilities: Review of literature and research paradigm. *Adapted Physical Activity Quarterly*, 20(4), 323-346. doi: [10.1123/apaq.20.4.323](https://doi.org/10.1123/apaq.20.4.323).
- Kurková, P. (2016). Physical activity among older people who are deaf and hard of hearing: perceived barriers and facilitators. *Physical Activity Review*, 4, 72-80. doi: [10.16926/par.2016.04.09](https://doi.org/10.16926/par.2016.04.09).
- Ley 10/1990, de 15 de octubre, del Deporte. Boletín Oficial del Estado. Madrid, 17 de octubre de 1990, núm. 249.
- Ley Orgánica 4/2007, de 12 de abril, por la que se modifica la Ley Orgánica 6/2001, de 21 de diciembre, de Universidades. Boletín Oficial del Estado. Madrid, 13 de abril de 2013, núm. 89, pp. 16242 y 16255.
- Lincoln, Y. S., and Guba, E. G. (1985). *Naturalistic Inquiry*. London: Sage Publications.
- Lindsay, S., and Edwards, A. (2013). A systematic review of disability awareness interventions for children and youth. *Disability and Rehabilitation*, 35(8), 623-646. Doi: [10.3109/09638288.2012.702850](https://doi.org/10.3109/09638288.2012.702850).
- Mahy, J., Shields, N., Taylor, N. F., and Dodd, K. J. (2010). Identifying facilitators and barriers to physical activity for adults with Down syndrome. *Journal of Intellectual Disability Research*, 54(9), 795-805. Doi: [10.1111/j.1365-2788.2010.01308.x](https://doi.org/10.1111/j.1365-2788.2010.01308.x).
- McDevitt, J., Snyder, M., Miller, A., and Wilbur, J. (2006). Perceptions of barriers and benefits to physical activity among outpatients in psychiatric rehabilitation. *Journal of Nursing Scholarship*, 38(1), 50-55. doi: [10.1111/j.1547-5069.2006.00077.x](https://doi.org/10.1111/j.1547-5069.2006.00077.x).
- Montecalbo-Ignacio, R. C., Ignacio III, R. A., and Buot, M. M. (2017). Academic achievement as influenced by sports participation in selected universities in the Philippines. *Education*, 7(3), 53-57. doi: [10.5923/j.edu.20170703.03](https://doi.org/10.5923/j.edu.20170703.03).

References

- Mulligan, H. F., Hale, L. A., Whitehead, L., and Baxter, G. D. (2012). Barriers to physical activity for people with long-term neurological conditions: a review study. *Adapted Physical Activity Quarterly*, 29(3), 243-265. doi: [10.1123/apaq.29.3.243](https://doi.org/10.1123/apaq.29.3.243).
- Norland, E. V. T. (1990). Controlling error in evaluation instruments. *Journal of Extension*, 28(2), 1-35.
- Organización de las Naciones Unidas -ONU- (2006). *Convención Internacional de los Derechos de las Personas con Discapacidad*. En: <https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities/convention-on-the-rights-of-persons-with-disabilities-2.html>.
- Organización Mundial de la Salud -OMS- (2001). *International Classification of Functioning Disability and Health*. En: <http://www.who.int/mediacentre/factsheets/fs385/es/>
- Organización Mundial de la Salud -OMS- (2001). *Recomendaciones mundiales sobre actividad física para la salud*. Ginebra: Autor. En: <http://www.who.int/dietphysicalactivity/publications/9789241599979/es/>
- Özer, D., Nalbant, S., Aglami, E., Baran, F., Kaya Samut, P., Aktop, A., and Hutzler, Y. (2013). Physical education teachers' attitudes towards children with intellectual disability: the impact of time in service, gender, and previous acquaintance. *Journal of Intellectual Disability Research*, 57(11), 1001-1013. doi: [10.1111/j.1365-2788.2012.01596.x](https://doi.org/10.1111/j.1365-2788.2012.01596.x).
- Pérez-Corrales, M. A. (2017). Práctica deportiva e impacto del sector deportivo en España. Ponencia presentada en la Mesa Redonda sobre "Competencias en Actividad Física y Deporte: ¿Cómo alcanzar un verdadero Deporte para Todos?". Madrid, 25 de octubre.
- Phillips, M., Flemming, N., and Tsintzas, K. (2009). An exploratory study of physical activity and perceived barriers to exercise in ambulant people with neuromuscular disease compared with unaffected controls. *Clinical Rehabilitation*, 23(8), 746-755. doi: [10.1177/0269215509334838](https://doi.org/10.1177/0269215509334838).
- Real Decreto 1393/2007, de 29 de octubre, por el que se establece la ordenación de las enseñanzas universitarias oficiales. Boletín Oficial del Estado. Madrid, 31 de octubre de 2007, núm. 260.
- Real Decreto 1791/2010, de 30 de diciembre, por el que se aprueba el Estatuto del Estudiante Universitario. Boletín Oficial del Estado. Madrid, 31 de diciembre de 2010, núm. 318.
- Real Decreto 412/2014, de 6 de junio, por el que se establece la normativa básica de los procedimientos de admisión a las enseñanzas universitarias oficiales de Grado. Boletín Oficial del Estado. Madrid, 7 de junio de 2014, núm. 318.
- Real Decreto 460/2015, de 5 de junio, por el que se aprueba el Estatuto del Consejo Superior de Deportes. Boletín Oficial del Estado. Madrid, 16 de junio de 2015, núm. 143.
- Real Decreto Legislativo 1/2013, de 29 de noviembre, por el que se aprueba el Texto Refundido de la Ley General de derechos de las personas con discapacidad y de su inclusión social. Boletín Oficial del Estado. Madrid, 3 de diciembre de 2013, núm. 289.
- Rees, D.I. and Sabia, J.J. (2010). Sports participation and academic performance: Evidence from the National Longitudinal Study of Adolescent Health. *Economics of Education Review*, 29(5), 751-759. doi: [10.1016/j.econedurev.2010.04.008](https://doi.org/10.1016/j.econedurev.2010.04.008).
- Reina, R. (2014a). Editorial: Adapted Physical Activity: the journey to Ithaca goes ahead. *International Journal of Sport Science*, 37, 177-179. doi: [10.5232/ricyde2014.037](https://doi.org/10.5232/ricyde2014.037).

References

- Reina, R. (2014b). Inclusión en deporte adaptado: dos caras de una misma moneda. *Psychology, Society and Education*, 1(6), 55-67. Doi: [10.25115/psye.v6i1.508](https://doi.org/10.25115/psye.v6i1.508).
- Sanz, D., y Reina, R. (2012). *Actividades físicas y deportes adaptados para personas con discapacidad*. Barcelona: Paidotribo.
- Rimmer, J. H., and Marques, A. C. (2012). Physical activity for people with disabilities. *The Lancet*, 380(9838), 193-195. doi: [10.1016/S0140-6736\(12\)61028-9](https://doi.org/10.1016/S0140-6736(12)61028-9).
- Rimmer, J., Schiller, W., and Chen, M. D. (2012). Effects of disability-associated low energy expenditure deconditioning syndrome. *Exercise and Sport Science Reviews*, 40(1), 22-29. doi: [10.1097/JES.0b013e31823b8b82](https://doi.org/10.1097/JES.0b013e31823b8b82).
- Rodríguez, G., Borrell, R., Asensi, C., Jaén, E., y col. (2017). *Guía de adaptaciones en la universidad*. Madrid: SAPDU y Fundación ONCE.
- Rodríguez, S., y Ferreira, M. A. V. (2010). Diversidad funcional: Sobre lo normal y lo patológico en torno a la condición social de la *dis*-capacidad. *Cuadernos de Relaciones Laborales*, 28(1), 64-83.
- Rust, R., and Sinelnikov, O. (2010). Practicum in self-contained environment: Pre-service teacher perceptions of teaching students with disabilities. *Physical Educator*, 67(1), 33-45.
- Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*, 22(2), 63-75. Doi: [10.3233/EFI-2004-22201](https://doi.org/10.3233/EFI-2004-22201).
- Sherrill, C. (2009). *Adapted physical activity, recreation and sport: Crossdisciplinary and lifespan* (6ª Ed.). Dubuque, IA, Estados Unidos: WCB/McGraw Hill.
- Snow, K. (2007). People first language. *Disability is natural*. At: www.disabilityisnatural.com
- Soundy, A., Stubbs, B., Probst, M., Hemmings, L., y Vancampfort, D. (2014). Barriers to and facilitators of physical activity among persons with schizophrenia: a survey of physical therapists. *Psychiatric Services*, 65(5), 693-696. doi: [10.1176/appi.ps.201300276](https://doi.org/10.1176/appi.ps.201300276).
- Stanish, H., Curtin, C., Must, A., Phillips, S., Maslin, M., and Bandini, L. (2015). Enjoyment, barriers, and beliefs about physical activity in adolescents with and without autism spectrum disorder. *Adapted Physical Activity Quarterly*, 32(4), 302-317. doi: [10.1123/APAQ.2015-0038](https://doi.org/10.1123/APAQ.2015-0038).
- Taliaferro, A. R., Ayers, S. F., and Housner, L. (2017). A descriptive analysis of the application of PETE standards. *Physical Educator*, 74(4), 606-626. Doi: [10.18666/TPE-2017-V74-I4-7499](https://doi.org/10.18666/TPE-2017-V74-I4-7499).
- Taliaferro, A. R., Hammond, L., and Wyant, K. (2015). Preservice physical educators' self-efficacy beliefs toward inclusion: the impact of coursework and practicum. *Adapted Physical Activity Quarterly*, 32(1), 49-67. doi: [10.1123/apaq.2013-0112](https://doi.org/10.1123/apaq.2013-0112).
- Taliaferro, A. R., and Hammond, L. (2016). "I don't have time": Barriers and facilitators to physical activity for adults with intellectual disabilities. *Adapted Physical Activity Quarterly*, 33(2), 113-133. doi: [10.1123/APAQ.2015-0050](https://doi.org/10.1123/APAQ.2015-0050).
- van der Horst, K., Paw, M. J. C. A., Twisk, J. W., and Van Mechelen, W. (2007). A brief review on correlates of physical activity and sedentariness in youth. *Medicine and Science in Sports and Exercise*, 39(8), 1241-1250. doi: [10.1249/mss.0b013e318059bf35](https://doi.org/10.1249/mss.0b013e318059bf35).

References

- van Schijndel-Speet, M., Evenhuis, H. M., van Wijck, R., van Empelen, P., and Echteld, M. A. (2014). Facilitators and barriers to physical activity as perceived by older adults with intellectual disability. *Journal of Intellectual Disability Research*, 52(3), 175-186. doi: [10.1352/1934-9556-52.3.175](https://doi.org/10.1352/1934-9556-52.3.175).
- Vickerman, P., and Coates, J. (2009). Trainee and recently qualified physical education teachers' perspectives on including children with special education needs. *Physical Education and Sport Pedagogy*, 14(2), 137-153. doi: [10.1080/17408980802400502](https://doi.org/10.1080/17408980802400502).
- Villarroya-Martín, R., y Ramos-Villagrasa, P. J. (2017). Competencias clave para la empleabilidad de los egresados universitarios: Un análisis en la Universidad de Zaragoza. *Acciones e Investigaciones Sociales*, 37, 215-235. Doi: [10.26754/ojs_ais/ais.2017372193](https://doi.org/10.26754/ojs_ais/ais.2017372193).
- Wang, L., Qi, J., and Wang, L. (2015). Beliefs of Chinese physical educators on teaching students with disabilities in general physical education classes. *Adapted Physical Activity Quarterly*, 32(2), 137-155. doi: [10.1123/APAQ.2014-0140](https://doi.org/10.1123/APAQ.2014-0140).
- Wilhelmsen, T., and Sørensen, M. (2017). Inclusion of children with disabilities in Physical Education: A systematic review of literature from 2009 to 2015. *Adapted Physical Activity Quarterly*, 34(3), 311-337. doi: [10.1123/apaq.2016-0017](https://doi.org/10.1123/apaq.2016-0017).
- Williams, T. L., Smith, B., and Papatthomas, A. (2014). The barriers, benefits and facilitators of leisure time physical activity among people with spinal cord injury: a meta-synthesis of qualitative findings. *Health Psychology Review*, 8(4), 404-425. doi: [10.1080/17437199.2014.898406](https://doi.org/10.1080/17437199.2014.898406).