

EUROPEAN HANDBOOK “PARA-LIMITS, DUAL CAREER, DISABILITY AND SPORT”



Alejandro Leiva-Arcas

Tom Comyns

Håkon Ege

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 **PARA-
LIMITS**



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-Editors-

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Alejandro Leiva Arcas, Tom Comyns & Håkon Ege.

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EUROPEAN HANDBOOK

“PARA-LIMITS, DUAL CAREER, DISABILITY AND SPORT”

Project Reference

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Alejandro Leiva-Arcas

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Håkon Ege

-Editors-

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Authorship

This Handbook was produced from the results of the project: “*Dual Career of Student-Athletes with Disabilities as a Tool for Social Inclusion*” (*Para-Limits*). The whole *Para-Limits* consortium, listed below, contributed directly to this Handbook:

Universidad Católica San Antonio de Murcia (UCAM)

Alejandro Leiva-Arcas > Principal Investigator

Álvaro Díaz-Aroca > Researcher

Francisco José Cánovas-Álvarez > Researcher

Juan Alfonso García Roca > Researcher

Lourdes Meroño García > Researcher

Lucía Abenza Cano > Researcher

María José Maciá Andreu > Researcher

Raquel Vaquero Cristóbal > Researcher

Università degli Studi di Roma "Foro Italico"

Emanuele Isidori > Project Manager

Alessandra Fazio > Researcher

Angela Magnanini > Researcher

Lorenzo Cioni > Researcher

University of Limerick

Tom Comyns > Project Manager

Rosemary Daniel > Researcher

European Athlete as Student (EAS)

Antonio Sánchez Pato > Principal Investigator

Laura Capranica > Project Manager

António Figueiredo > Researcher

Laurence Blondel > Researcher

Instituto Politécnico De Viseu

Antonino Pereira > Project Manager

Abel Figueiredo > Researcher

Francisco Mendes > Researcher

Spanish Paralympic Committee

Zuriñe Ibarra > Project Manager

María Delgado > Researcher

National University of Physical Education and Sports of Romania

Aura Bota > Project Manager

Monica Stanescu > Researcher

Valeria Balan > Researcher

Collective Innovation

Håkon Ege > Project Manager

Ismael Elotmani Nordli > Researcher

Fundación Once

Silvia Duarte Amado > Project Manager

Isabel Martínez Lozano > Researcher

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PREFACE

The description, knowledge and development of the dual career of the student-athlete with disabilities is the main topic of this publication. Through this handbook the editors present the guidelines for the design, implementation and evaluation of a pilot course for the training of expert mentors in dual career and adapted sport.

The dual career is the methodology by which support is provided to the athlete-student (in this case, with some kind of disability), so that they can combine their sporting life and their academic career simultaneously and successfully. Within the dual career, mentoring has emerged as one of the essential resources to ensure the viability of the model. The main objective of this course is to provide university staff with the knowledge, skills and competences necessary to support this population by attending to their specific needs, promoting social inclusion and fostering an environment that facilitates their academic and sporting growth.

To this end, the authors of this Handbook have designed six training modules based on a holistic learning philosophy and following a comprehensive, innovative, asynchronous and, above all, useful teaching methodology.

The first chapter shows the general structure of the course and the parts into which it is divided. This is an introductory chapter that covers the main features of the course in general and provides an overview that will facilitate a better understanding of the methodology developed in the rest of the modules.

The second chapter shows the relationship between stakeholders and their relations with student-athletes with disabilities from different elements such as academic and sport supports that influence the daily life of these athletes. Then, the dual career of student-athletes is analysed following the authors' experience with reference to good practices and research of the last decade in Europe.

The third chapter deals with the description, definition and classification of the types of disability and the sporting categories that are made around it. A structural review of each type of disability and its sporting potential is addressed.

Individual inclusion is the central axis of the fourth chapter in order to understand the adaptation of the existing models of non-disabled athletes to Paralympic athletes from the integral view of the process, through mentoring and accompaniment as well as the detection of the simplest needs of counselling.

The fifth chapter focuses on the description of an appropriate and procedural environment for inclusion on university campuses. The different types of physical barriers are described as well as the different internal procedures are identified and applied. The principles of accessibility and knowledge about adapted sports equipment to facilitate sports practice are indicated.

Social inclusion as a means for the integration of student-athletes with disabilities into the university environment is addressed in the sixth chapter. By mapping the activities through which students interact with each other and with members of the university community, the most appropriate activities for this group to integrate into the university are identified.

The book you hold in your hands is the fruit of a collective work developed by nine European partners who have pioneered an innovative course. Through its pages you will find not only all the knowledge generated during the Para-Limits project, but also the way to replicate its methodology and contribute to the greater inclusion of athletes-students with disabilities through the dual career model in the university environment.

The Para-Limits project team



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GENERAL STRUCTURE OF THE COURSE

Håkon Ege

Collective Innovation, Oslo, Norway

Corresponding author: Håkon Ege.

Email: hakan@collectiveinnovation.no

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GENERAL STRUCTURE OF THE COURSE

COURSE OVERVIEW	<p>This course seeks to train the university lecturers (student-athlete mentors), so that they become professional guides who will provide specific support to the disabled student-athletes. A total of 6 modules make up this innovative course. The objective is to design an online curriculum to train university lecturers to become expert guides (mentors) specialized in supporting the Dual Career of disabled athletes. The general outline of the structure of the modules is described below.</p> <ul style="list-style-type: none"> ▪ MODULE 1: Introduction to the course. Dual-career for student-athletes with a disability. Stakeholder identification and relationship and support network development. ▪ MODULE 2: Introduction to the dual career of student-athletes ▪ MODULE 3: Disability, disability categories and sports categories. ▪ MODULE 4: Individual inclusion, mentoring and single needs. ▪ MODULE 5: Environmental inclusion. Creation of suitable environments and procedural adaptations on the campuses. Identification and removal of physical barriers. ▪ MODULE 6: Social inclusion. Good practices for the integration of the student-athletes with a disability in the university community.
TARGET GROUP	<ul style="list-style-type: none"> • University lecturers.
LANGUAGE OF DELIVERY	<ul style="list-style-type: none"> • English.
GENERAL COURSE STRUCTURE	<ul style="list-style-type: none"> • Six modules to complete.
LEARNING OBJECTIVES	<ul style="list-style-type: none"> • To enhance mentors' appreciation and understanding of the dual-career of student-athletes and their ability to effectively support the dual-career of student-athletes with a disability. • To develop the mentors' ability to develop effective relationships with key stakeholders engaged in the dual-career of student-athletes with a disability.

	<ul style="list-style-type: none"> • To enhance mentors' ability to identify the needs of student-athletes with a disability regarding the organization of their dual-career and to develop the mentors' communication strategies with these student-athletes. • To enhance mentors' appreciation of disability, disability categories and disability sporting classifications. • To develop mentors' ability to identify and remove the challenges and barriers faced by student-athletes with a disability. • To develop the mentors' ability to support the social inclusion of student-athletes with a disability into the university community.
COURSE METHODOLOGY	<ul style="list-style-type: none"> • Online asynchronous delivery. Mixture of presentation delivery, task completion and readings. Assessment will involve the completion of multiple choice questions.
TRAINING METHOD(S)	<ul style="list-style-type: none"> • Virtual learning.
LEARNING ACTIVITIES	<ul style="list-style-type: none"> • This will include engagement with presentations, completion of relevant tasks, observing video footage and also readings of relevant papers and policy documents. Reflection and completion of multiple-choice quizzes will also be learning activities that the participants will engage in.
ESTIMATED DURATION	<ul style="list-style-type: none"> • 60 to 90 minutes per module.
ASSESSMENT	<ul style="list-style-type: none"> • Completion of 5 multiple-choice questions at the end of each module. Six modules in total so there will be 30 questions to complete by the end of this course.



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MODULE 1

Dual career for Student Athletes with a disability. Stakeholder Identification and Relationship and Support Network Development

Tom Comyns

Rosemary Daniel

University of Limerick, Limerick, Ireland.

Corresponding author: Tom Comyns.

Email: tom.comyns@ul.ie

1 STRUCTURE OF MODULE 1	
MODULE TITLE AND NUMBER	<ul style="list-style-type: none"> Module 1: Dual-Career for student-athletes with a disability. Stakeholder identification and relationship and support network development.
MODULE DESCRIPTION	<ul style="list-style-type: none"> In this module the overall course will be introduced. After this, the stakeholders that are engaged with the dual-career of student-athletes with a disability will be outlined. Direction on how to develop an effective relationship with these stakeholders will be provided and guidance on the creation of support networks for student-athletes with a disability will be addressed.
LEARNING ACTIVITIES	<ul style="list-style-type: none"> The learning activities will include engagement with presentation content, review of case studies, completion of various related tasks, paper reviewing and the completion of quizzes.
INTENDED LEARNING OUTCOMES	<ul style="list-style-type: none"> To develop the mentors' understanding of who the key stakeholders are in the development of the dual-career for student-athletes with a disability. To enhance the mentors' ability to build effective relationships with key stakeholders. To develop the mentors' ability to identify and devise a support network for student-athletes with a disability. To enhance the mentors' appreciation of the role that universities can play regarding the development of effective support networks for student-athletes with a disability.
TRAINING SOURCES and TOOLS	<ul style="list-style-type: none"> N/A.
ASSESSMENT AND EVALUATION	<ul style="list-style-type: none"> Completion of 5 multiple-choice questions.

MODULE DURATION	<ul style="list-style-type: none"> • 60 to 90 minutes.
EDUCATIONAL METHODS AND TECHNIQUES	<ul style="list-style-type: none"> • Engagement with presentations. • Engagement with tasks related to the presentations. • Reading of related papers and policy documents.
ADDITIONAL RESOURCES	<ul style="list-style-type: none"> • N/A.

MODULE 1: Dual career for student athletes with a disability. Stakeholder identification and relationship and support network development

1.1. Introduction to Module 1

The title of this module is **Dual-career for student-athletes with a disability. Stakeholder Identification and relationship and support network development**. In this module the stakeholders that are engaged with the dual-career of student-athletes with a disability will be outlined. Direction on how to develop an effective relationship with these stakeholders will be provided and guidance on the creation of support networks for student-athletes with a disability will be addressed. In module 4 you will cover significant detail related to dual-career but before we get to that module it is important to clarify what is meant by dual-career. The concept of Dual Career refers to the challenge of reconciling a sports career with studies or work, which is a source of concern for most elite athletes. Dual-career can be defined as the challenge of combining a sport career with studies or work (Ryba et al., 2015), as "a career with main focuses on sport and studies or work" (Stambulova & Wylleman, 2015, p.1) or the combination and coupling of a sport career with education and/or occupation (Geraniosova & Ronkainen, 2015) in such a way that both can develop without interfering with each other and successfully (Sánchez-Pato et al., 2021).

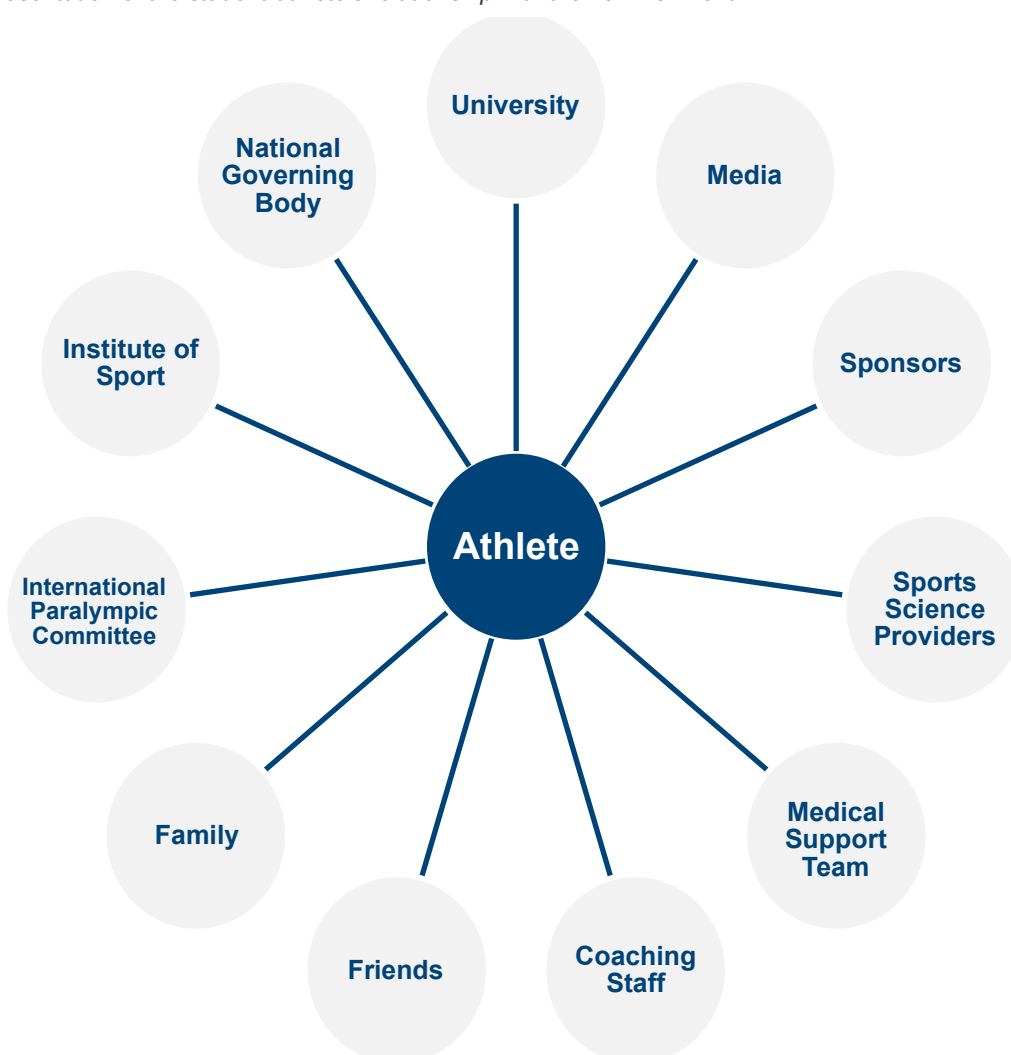
The intended learning outcomes of this module are as follows:

- To develop the mentors understanding of who the key stakeholders are in the development of the dual-career for student-athletes with a disability.
- To enhance the mentors' ability to build effective relationships with key stakeholders.
- To develop the mentors' ability to identify and devise a support network for student-athletes with a disability.
- To enhance the mentors' appreciation of the role that universities can play regarding the development of effective support networks for student-athletes with a disability.

1.2. Who are the stakeholders involved in the dual career of student athletes with a disability at university level?

The stakeholders involved in the dual career of student athletes with a disability is complex because of the large number of stakeholders involved but is very much interconnected. Developing a successful high-performance ecosystem that enables student athletes with a disability thrive both academically and in their sport requires good working relationships between each of the stakeholders listed below (Figure 1).

Figure 1
Representation of the student-athlete's relationship with their environment

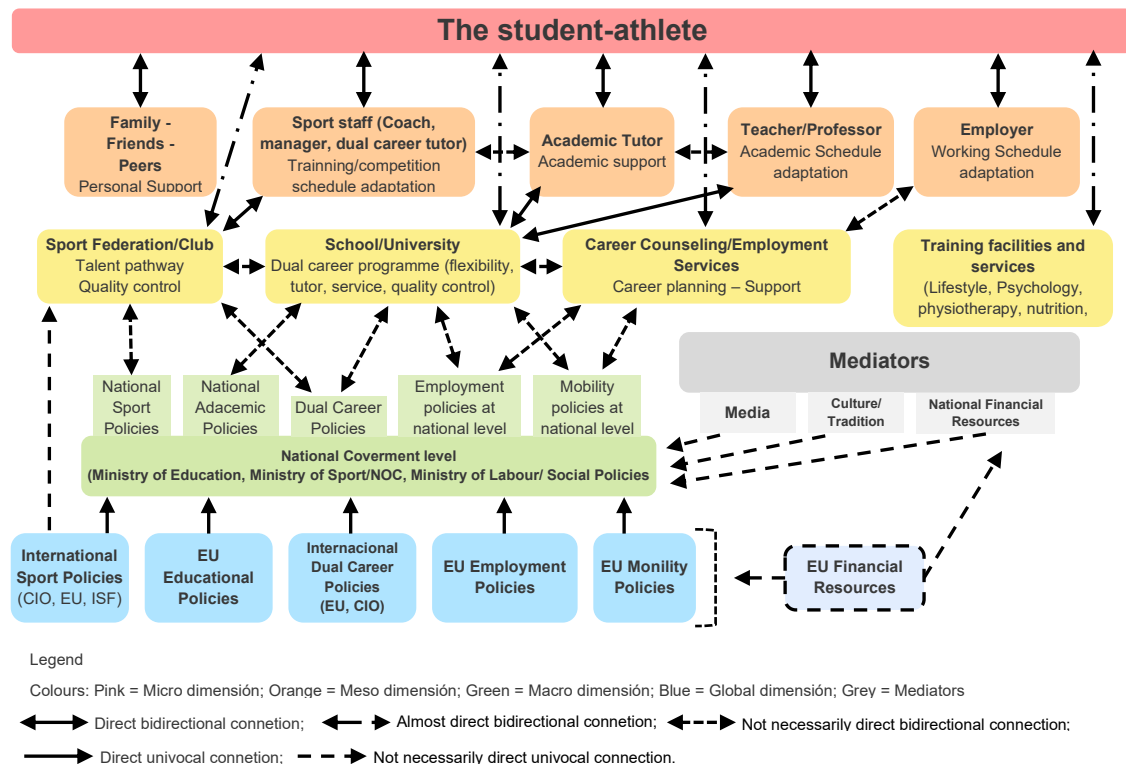


Note. This figure shows the relationships between each of the stakeholders that create a successful ecosystem that enables student athletes with a disability thrive both academically and in their sport.

Source: Capranica & Guidotti, 2016.

Below is a schematic representation by Capranica & Guidotti (2016) which shows the bidirectional/multidirectional nature of stakeholder relationships in the Dual Career Athlete Framework. In many respects this framework is the same for student athletes with a disability however in some sectors there may be no representation/visibility of key personnel who advocate for student athletes with disabilities. This is something we need to address and change at the Meso, Macro and Global levels as seen in the diagram below (Figure 2).

Figure 2
The Dual Career athlete framework



Note. This diagram shows the bidirectional/multidirectional nature of stakeholder relationship in the Dual Career Athlete Framework.

Source: Capranica & Guidotti, 2016.

1.3. Building Effective Relationships with Stakeholders

- Effective relationships are holistic in nature and should focus on the positive growth and development of all parties involved.
- Communication, trust, respect and teamwork are the foundations of good working relationships.

- It's important that all stakeholders involved in the dual career of student athletes with disabilities have a shared vision/goal and have a key understanding of stakeholders expert knowledge, skills and experiences.

Below are some tips for stakeholders on how to develop effective working relationships:

1. Develop a Holistic Culture.
2. Develop a Common Goal & Vision.
3. Clearly defined roles & responsibilities among stakeholders.
4. Open Communication between stakeholders.
5. Collective Decision Making & Planning.
6. Be Motivated and Passionate about your work, commitment to excellence.
7. Trust & Confidence in stakeholders and the process.
8. Social Support / Respect, Value Members & Be Inclusive.
9. Shared Responsibility, accountability & Integrity.
10. Share Knowledge, Experiences.
11. Provide Constructive Feedback.
12. Be Proactive in Problem Solving.
13. Be Flexible and open to new ideas.
14. Continually work on your own personal skills and professional development (communication, listening, problem solving, conflict resolution, CPD upskilling).

1.4. What support network do student-athletes with disabilities need?

The 3 main pillars of support required by student athletes with a disability are:

1. Academic Support
2. Sports Support

3. Personal Support

1. **Academic Support:** At university level there are three key university staff/personnel that can provide support to student athletes with a disability (Figure 3). The support provided by these personnel will be outlined later in this module.

Figure 3
Levels of support provided at university level



Note. This figure shows three different levels of support provided at university level to student athletes with a disability.

2. **Sports Support:** Student athletes with a disability require support from their sport. This will involve the National Paralympic Council, National Sports Governing body and high-performance director for a given sport along with the sports designated medical and sport science support team. Please note that the medical or sport science support teams can be centrally based (national team service providers) or they can be more regionally based (service providers that the athlete works with locally or university employed service providers e.g. university coach, university physiotherapist, etc.). It is important to remember that some para student athletes may not receive funding or have access to their national governing sports body support services and their only access to support services is through the university setting. Stakeholders need to liaise with each other and put together the best support structure in place for the athlete with

regards to access to funding, support services, facilities and coaching staff. National sports governing bodies need to provide training courses for coaches involved in Para Sports and individuals who have an interest in shadowing para coaches and working with para-athlete. Sporting organisation have an important role to play in Talent ID in para sports, advocating for student para-athletes at government level and raising the profile of para sport in the media locally, nationally and internationally (Figure 4).

Figure 4
Service-providers' environment for the athlete



Note. This figure shows the key components for a good service-provider's environment for the athlete, that consist of: medical staff, sports scientists, coaching staff, psychologist, national High Performance Directors (NGB) and Paralympic Committee.

Service Providers usually include the following:

- Sports Doctor.
- Sports Physiotherapist.

- Sports Psychologist.
- Exercise Physiologist.
- Sports Biomechanist.
- Nutritionist.
- Strength & Conditioning Staff.
- Performance / Video Analyst.
- High Performance Sports Coaches.
- Sports Technology Engineer (design specialist sports equipment).

3. Personal Support: Throughout the student athletes with a disability Dual Career there will be times when they will need personal support. Personal support may come from a number of individuals who are close to the student athlete as seen in the diagram below. As a student athlete with a disability, it is important for them to have a large social network that encompasses friends within in sport, outside the sport, university classmates, fellow student with disabilities, friendships developed through clubs and societies as well as their family and close friends (Figure 5).

Figure 5
Athletes' close support environment



Note. This figure shows the key components of a Athletes' close support environment, that consist of: their family, friends, coach, psychologist, university advisor and service provider.

A recent ACSM Medical Statement on Mental Health challenges for athletes (2021) has shown that student athletes at times experience mental health problems with a reported 30% of female and 25% of male student athletes suffering from anxiety and that only 10% of student athletes with a known mental health condition sought professional help. Having a good social support network in place for student athletes and having access to professional services (counsellors, doctors, psychologists) can help support student athletes during difficult times.

- Invite Stakeholders to your University / Workplace.
- Let them see what the reality is for the student athlete with a disability studying and training in the university or generate a video clip of 'A Day in the Life of a University Student Athlete with a Disability' and share it with all stakeholders.

- University to hold meeting with all stakeholders. Listen to the barriers/challenges experienced by all stakeholders.
- Devise appropriate plans to help overcome these obstacles.
- Evaluate & Review Processes Annually.

1.5. What can the university do regarding support networks and to support the dual-career of student-athletes with a disability? What academic supports can be provided?

The university can provide direct support to student-athletes with a disability through academic supports. Academic supports in a university setting can comprise, for example, the following personnel:

- Staff student advisor (usually a lecturer from the student-athletes' course who acts as an academic advisor).
- Sports administrator (usually manager in the sports office who provides support to the student-athletes sporting development).
- Disability support liaison officer (officer from the disability office who provides support to the student-athlete regarding the accommodations needs from an academic perspective to support the student's academic progress).

Each university setting may have different structures and supports in place to support the academic progression of student-athletes with a disability. In your university please consider, research and reflect on what additional personnel from an academic perspective exist that can further support and enhance the dual career of the student-athlete with a disability.

The University of Limerick in 2021 published their High-Performance Athlete Policy: https://www.ul.ie/sites/default/files/policyhub/High_Performance_Athlete_Policy.pdf.

Each faculty of the university has a member of the lecturing staff who is the designated high performance athlete advisor for student-athletes who are part of their faculty. These advisors provide academic support to the student-athletes and are responsible for ensuring that the policy is implemented and monitored.

The purpose of this policy, which is an approved university policy, sets out the University of Limerick's policy and associated procedures relating to the award of high-performance athlete (HPA) status on elite athlete students of the University. Once a student has been awarded HPA status, the student is eligible to be in receipt of reasonable accommodations from the University to assist them to meet the requirements of both their degree programme and their outside sporting commitments. Some of the reasonable accommodations that may be made at the discretion of the academic unit, course director or module leader include:

- Providing extra assistance with academic planning.
- Offering alternative accommodation if exams, lectures, tutorials or labs coincide with training or an important sporting event.
- Being flexible with assessment deadlines based on sports-related travel commitments.
- Allowing the student, where possible, to sit exams externally under exam conditions within the student athlete's environment, including while travelling.
- Offering flexible leave of absence when it is needed by the student athlete to meet their sporting commitments.
- Offering flexibility in relation to alternative Co-op or Erasmus models once the alternative has been arranged one semester in advance.
- Providing access to distance education materials and class notes for missed lectures, tutorials or labs, where appropriate and available.
- Splitting or postponing semesters.

You now need to complete the following two tasks:

1. Open the University of Limerick HPA policy document to gain a more in-depth understanding of the procedures involved in the implementation of this policy. ([https://www.ul.ie/sites/default/files/policy-hub/High Performance Athlete Policy.pdf](https://www.ul.ie/sites/default/files/policy-hub/High%20Performance%20Athlete%20Policy.pdf)).
2. Consider your own university in light of this policy. Is there are similar policy in your university setting? Do formalised procedures, policies or academic structures exist within your university designed to support the dual-career of student-athletes? If so, are your familiar with these procedures, policies

or structures and how they can be used to support the dual-career of student-athletes with a disability? If there is nothing formally in place in your setting, consider how you could influence the development and adoption of a high-performance athlete policy designed to support the dual career of student-athletes in your university.

In England the Talented Athlete Scholarship Scheme (TASS) helps athletes – aged 16-plus – to balance sport with the rest of their lives, be they in education, training or another form of personal development. TASS is a Sport England funded partnership between talented athletes, delivery sites and national governing bodies of sport (<https://www.tass.gov.uk/>). In 2021 TASS published ‘Developing the Para Dual Career Athlete Landscape: Recommendations for Organisations’ (https://www.tass.gov.uk/wp-content/uploads/2021/10/PDF_Key-Organisational-Recommendations.pdf).

This document is the report of research designed to explore the experiences of para dual career athletes in higher education. Key recommendations for the key stakeholders involved in supporting the dual careers of student-athletes with a disability are provided in this document. For the university setting the following recommendations were provided (TASS, 2021, p. 11-14):

1. Could universities promote designated para-sport roles?

The responsibilities of such roles include:

- a.** Education of academic staff on the specific needs of and support required for para-athletes at university.
- b.** Education of sports staff/practitioners and ensuring that the university sport workforce is suitably qualified and upskilled to work with para-athletes.
- c.** Ensure elite para-athletes have equal access to sport scholarships, performance support, academic flexibility, etc.
- d.** Promote participation of social sport amongst disabled athletes within the student community and breaking down any barriers disabled students might encounter when engaging in sport.
- e.** Promote the value of para sport throughout the university and beyond.

- c. Increase practitioner/coach/staff development.
- d. Increase the competitive opportunities available to university para-athletes.

You now have two final tasks to complete as part of this module as follows:

1. Open the TASS report entitled 'Developing the Para Dual Career Athlete Landscape: Recommendations for Organisations'. Specifically read, review and reflect on the section related to 'Key Considerations for Universities' (pp. 11-14 inclusive). As additional reading review, the entire document as it contains pertinent information regarding the dual-career of student-athletes with a disability.
2. Reflect on the four questions for universities from the TASS report with reference to your university. How do they apply to your setting and how could you influence the realisation of these considerations within your university?

1.6. Quiz

1. Which of the following are key stakeholders involved in creating a holistic academic/high performance sport environment for the Dual Career of student athlete with a disability studying at university?
 - A. National Governing Body of Sport.
 - B. Coaching Staff.
 - C. Family.
 - D. A, B and C are all correct.**
2. Which of the following ways can be used to build effective relationships with stakeholders?
 - A. The university takes the lead in all decisions.
 - B. Collective decision making**
 - C. Closed communication.

D. A, B and C are all incorrect.

3. Which of the following categorise the Support Networks for student-athletes with disabilities?

A. Athlete Support.

B. Sport Support.

C. Personal Support.

D. A, B and C are all correct.

4. Which of the following university staff would not be involved in supporting the dual career of student-athletes with a disability?

A. National governing body performance director.

B. University sports administrator.

C. University disability officer.

D. Student-athlete academic advisor.

5. Which of the following strategies could your University/Institution implement to enhance the Dual Career of Student Athletes with a disability?

A. Providing extra assistance with academic planning.

B. Offering alternative accommodation if exams, lectures, tutorials or labs coincide with training or an important sporting event.

C. Being flexible with assessment deadlines based on sports-related travel commitments.

D. A, B and C are all correct.

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**PARA
LIMITS**

MODULE 2

**Introduction to the dual career of
student athletes**

María José Maciá Andreu¹

Alejandro Leiva-Arcas¹

Lourdes Meroño García¹

Lucía Abenza Cano¹

Raquel Vaquero Cristóbal¹

Álvaro Díaz-Aroca¹

***Francisco José Cánovas-
Álvarez¹***

Juan Alfonso García Roca¹

Antonio Sánchez Pato²

¹UCAM – Universidad Católica de Murcia, Murcia, Spain.

²Universidad Internacional de La Rioja, Logroño, Spain.

Corresponding author: Raquel Vaquero-Cristóbal.

Email: rvaquero@ucam.edu

2 STRUCTURE OF MODULE 2	
MODULE TITLE AND NUMBER	<ul style="list-style-type: none"> Module 2: Introduction to the dual career of student-athletes.
MODULE DESCRIPTION	<ul style="list-style-type: none"> This module provides an introduction to the concept of the dual career of student-athletes and the state of the art at international level. It also analyses the main benefits and barriers for its development, as well as the characteristics of the different models implemented previously, the main stakeholders involved and their role, and future trends. Finally, the potential of dual career in high-level disabled athletes will be discussed.
LEARNING ACTIVITIES	<ul style="list-style-type: none"> Video lecture (mandatory). Reading (mandatory). Task (mandatory). Quiz (mandatory). Additional readings (optional).
INTENDED LEARNING OUTCOMES	<ul style="list-style-type: none"> To understand the concept and main characteristics of the dual career of student-athletes. To know the main benefits and barriers for the development of the dual career of student-athletes. To learn about the main models and the stakeholders involved. To understand the potential of dual career in high-level disabled athletes.
TRAINING SOURCES and TOOLS	<ul style="list-style-type: none"> Videos (x4). Video transcript (x4). Reading (x1).

	<ul style="list-style-type: none"> • Task (x1). • Quiz (x1). • Additional readings.
ASSESSMENT and EVALUATION	<ul style="list-style-type: none"> • Completion of 5 multiple-choice questions.
MODULE DURATION	<ul style="list-style-type: none"> • 60 to 90 minutes.
EDUCATIONAL METHODS and TECHNIQUES	<ul style="list-style-type: none"> • Lecture. • Problem solving. • Individual study. • Interactive learning. • Self-paced learning.
ADDITIONAL RESOURCES	<ul style="list-style-type: none"> • Recommended readings and videos.

MODULE 2: Introduction to the dual career of student athletes

2.1. Introduction to Module 2

This module provides an introduction to the concept of the dual career of student-athletes and the state of the art at international level. It also analyses the main benefits and barriers for its development, as well as the characteristics of the different models implemented previously, the main stakeholders involved and their role, and future trends. Finally, the potential of dual career in high-level disabled athletes will be discussed.

The intended learning outcomes of this module are as follows:

- To understand the concept and main characteristics of the dual career of student-athletes.
- To know the main benefits and barriers for the development of the dual career of student-athletes.
- To learn about the main models and the stakeholders involved.
- To understand the potential of dual career in high-level disabled athletes.

2.2. Dual career of student-athletes

Competitive and high-level sport requires a certain amount of practice time to achieve sporting excellence in a given modality, even turning this practice into a profession in certain cases, at the highest level of competition, with the objectives of results as a guide, without obviously neglecting the objectives of improving personal or collective performance (Mendoza Laiz et al., 2018). Sports training aimed at high performance demands from its candidates exhaustive daily training routines, physical recovery periods, compliance with rest times and renunciation of social and family commitments (Soares et al., 2016). Thus, achieving sporting excellence requires between 20 and 30 h per week to train and compete, while students spend around 30 h per week to achieve a successful academic career (Aquilina, 2013). In general, young athletes participating in sports academies start competing at around 8 years of age and a 10-year experience is required to reach elite performance, with an additional 5-10 years to compete at the highest

level. Thus, the selection, detection and development of talent overlaps with higher education (Wylleman & Reints, 2010). Despite these efforts, most athletes subsist only on their income derived from their sporting activity, which is largely limited (Martínez-Abajo et al., 2021). As a result, young elite athletes face several difficulties in combining sport with educational or work commitments, as the goal of succeeding at the highest level of a sport requires training and competition at both national and international level, which can be difficult to reconcile with the challenges and restrictions of the education system and the labour market (Capranica & Millard-Stafford, 2011; Conzelmann & Nagel, 2003; European Commission, 2012; Moreno Castellanos et al., 2018).

Such prolonged dedication can lead to loss of motivation, fatigue, risk of injury and athlete overload (McCormack & Walseth, 2013), as well as emotional exhaustion, due to the demands of training and competition, inadequate recovery and continuous competitive stress (Félix-Mena et al., 2021). This can put a lot of pressure on athletes as they are forced to choose between maximising their athletic potential or obtaining a good title for their post-sport career (Lavalée & Wylleman, 2000). The problem in Europe is that sport is often organised at club level, with little or no connection to the education system. Consequently, European sport talents tend to either drop out of sport and prioritise education to prepare for future job opportunities (Amara et al., 2004; Istituto Nazionale di Statistica [ISTAT], 2007) or postpone (i.e. >24 years) the attainment of a degree. A balance between sport and other aspects of life, such as work or studies, can help prevent early sport drop-out as well as identity crisis (Lavalée and Robinson, 2007; Warriner and Lavalée, 2008). These elite athletes should not only have a harmonious and healthy sporting career, but also a proper follow-up after their active sporting career so that talent is not lost and investment is not wasted, with reintegration into education and the labour market being of great importance (European Commission, 2012).

On the one hand, according to Geraniosova and Ronkainen (2015), this can often lead to the premature interruption of the sport career due to the prioritisation of education (Amara et al., 2004), on the other hand, it may happen that the athlete tends to invest less in education due to the exclusive focus on sport achievement (Aries et al., 2004). Therefore, in general terms, the athlete can opt for three different paths with respect to their sporting career: a) linear path, dedicated exclusively to sport, b) convergent path, in which sport and studies or work are combined, giving priority to one or the other depending on the specific circumstances, or c) parallel path, in which sport and studies or work are equally important (Pallarés et al., 2011).

If the athlete chooses to dedicate themselves exclusively to sport, their incorporation into the labour market suffers a significant time lag with respect to people of the same age who have opted for an academic career or a working career, so that the process of social and labour market integration of high-level athletes may be compromised, with a series of added difficulties as a result of this lag, if they are not provided with the appropriate methods, tools and strategies (Puig & Vilanova, 2006; Torregrosa et al., 2015; Tshube & Feltz, 2015), to help them enter the labour market. In this sense, athletes need to find a balance between the demands of transition and their resources and coping strategies: the closer the balance, the more likely athletes are to experience a successful transition (Stambulova, 2003), so they should be supported while combining work or education with a sport career (Lorenzo & Sampaio, 2005; Stambulova et al., 2015).

In the face of these problems, dual careers present themselves as the best option for a better transition to retirement, defined as the challenge of combining a sport career with studies or work (Ryba et al., 2015), as "a career with main focuses on sport and studies or work" (Stambulova & Wylleman, 2015, p.1) or the combination and coupling of a sport career with education and/or occupation (Geraniosova & Ronkainen, 2015) in such a way that both can develop without interfering with each other and successfully (Sánchez-Pato et al., 2021). The dual career usually spans a period of 15-20 years and during this time, the student-athlete, understood as the individual who maintains an educational or academic career parallel to the sporting career (Wylleman et al., 1998), will go through different stages of sport, work or academics, as well as life in general (European Commission, 2012) and must adjust and face challenges in both the academic and sporting spheres (Stambulova, 2010). This means that intervention and support for these athletes should be comprehensive (Torregrosa et al., 2004) and that the design of dual career programmes should respond to the individual needs of the athletes, taking into account their sport specialisation, age, stage of development and economic situation, with athletes taking on increasing responsibility as they progress in their career (European Commission, 2012).

Knight et al. (2018) highlight the importance of acknowledging and gaining a better understanding of the challenges that a dual career might bring, and how to handle them, to be able to maximize the opportunities for the student-athletes so that they may be able to succeed in both sports and academics. In recent times and over the past decades, dual career research about athletes' careers, transitions, and related applied work has gained much attention, switching the focus from a performance enhancing perspective to a more holistic approach. The early stage of initiation (1960s–1980s) focused on athletic retirement and non-sport frameworks, whereas in 1990s, it was developed with a shift to a whole

career perspective and within career transitions guided by sport specific frameworks. Since 2000, it has been characterised by the establishment with shifts to a whole person and a whole environment perspective, and culturally informed research and practice (Stambulova et al., 2020).

As Debois et al. (2012) point out, a sporting career is not a linear path to excellence but an up-and-down trajectory in which athletic development is strongly linked to social, personal and/or academic development, the mutual interaction of which can condition sporting success. In a holistic perspective (Wylleman et al., 2004), this process calls for a more balanced routine between the time dedicated to studies and sport, culminating in what is understood as convergent (sport is a priority but happens simultaneously with an alternative activity) or parallel (sport and higher education receive the same prioritization) dedication. An optimal balance is defined by Stambulova et al. (2015), as “a combination of sport and studies that helps the individual to achieve one’s educational and athletic goals, as well as live a satisfying private life whilst still being able to maintain good health and well-being” (p. 9). Athletes’ development as holistic (Wylleman, 2019; Wylleman et al., 2013) also means multidimensional, with athletic development complemented by psychological, psychosocial, academic-vocational, financial, and legal layers influencing each other in multiple ways, where changes in one layer inevitably lead to changes in the others.

Promotion of dual careers of athletes matches with several of the aims of the Europe 2020 Strategy (prevention of early school leaving, more graduates in higher education, higher employability) and makes sport policies more efficient by keeping more talented and high-performance athletes in the sport system. In this respect, the European Union (EU) has taken aware of the importance of enhancing athletes learning and education, through specific initiatives and political strategies supported by its funds. One of the main documents of reference is the *EU Guidelines on Dual Careers of Athletes* (European Commission, 2012), as a common framework due to the large number of specifications and regulations related to talented and elite sportspeople existing in some of the EU Member States, being most of them fragmented or focus only on some aspects. Dual career arrangements are relatively recent in the majority of Member States and sports, and they sometimes lack solid agreements between the sport system and either the educational sector or the labour market, presenting relevant differences in dual career policies (Aquilina, 2013; Aquilina & Henry, 2010; Henry, 2013).

For this reason, these guidelines are addressed primarily to policy makers in the Member States, as inspiration for the formulation and adoption of action-oriented national dual career guidelines, to raise awareness at national level about the concept of dual careers and to sensitise the stakeholders involved. The main challenges are:

- › The safeguarding of the development of young athletes, especially of children in early specialisation sports, young people in vocational education and training, and disabled athletes.
- › The balance between sports training and education and, at a later stage of life, the balance between sports training and employment.
- › The end-of-sporting-career phase of athletes including those who leave the system earlier than planned.

This document contains 36 guidelines concerning policy areas, the European dimension of dual careers in sport and its dissemination, monitoring and evaluation.

Concerning the policy areas detailed, they are:

1. Need for a CROSS-SECTORAL, INTER-MINISTERIAL APPROACH at national level.
2. SPORT (sport organisations, sport academies and high-performance training centres, coaches and other members of performance teams, supporting services).
3. EDUCATION (school education, vocational education and training, higher education, distance learning).
4. EMPLOYMENT (combination of work and sport, transition to the post-sport career, social dialogue).
5. HEALTH (psychological assistance, medical support, prevention programmes).
6. FINANCIAL INCENTIVES FOR ATHLETES (scholarships, other financial support, social security, health protection and pension plans).

Related to the European dimension of dual careers in sport, the document highlights:

- Training and study abroad: athletes represent one of the most internationally mobile parts of the European population. They frequently travel abroad for sports training and stages, competitions (including long tournaments), and/or studies.
- Curriculum development at EU level: mobility of dual career athletes could be enhanced by the implementation of EU bachelor's and master's degrees in the field of sport, with different academic institutions and high-performance training centres contributing to a common curriculum.
- Quality framework for the implementation of dual career programmes ensuring the quality of measures and interventions the longer term.

Finally, when it comes to its dissemination, monitoring and evaluation:

- Public awareness: The concept of dual careers can only be successfully implemented if athletes and their entourage (from coaches to parents) are aware of its importance.
- Dual career networks: value of cross-sectoral cooperation and innovative partnerships and approaches to spread good practices, to foster learning across national borders, to raise awareness at national and international level and to develop new ideas about challenges in specific sports or smaller EU Member States.
- Research, monitoring and evaluation: The implementation of policy actions for the promotion of dual careers should be monitored at national and, potentially, EU level. Indicators should be developed and could yield important information on policy implementation processes and outcomes at national level.

2.3. Benefits and barriers for dual career

From all of the above, it is possible to perceive the great benefits that the dual career can have for athletes if it is correctly implemented and the necessary resources are available for it, so several studies have focused on analysing them in recent years. For example, Wylleman et al. (2013) highlighted the positive relationship between athletes' development in sport and in other areas such as

psychosocial, psychological, professional, economic or vocational-academic. Benefits for athletes involved in dual career programmes (as compared with athletes experiencing a lack of coordination between sport and education) are clearly articulated in sport research and include (European Commission, 2012):

- Health-related benefits (e.g. balanced lifestyle, reduced stress levels, increased wellbeing);
- Developmental benefits (e.g. better conditions to develop life skills applicable in sport, education and other spheres of life, development of personal identity, positive effects on athletes' self-regulation abilities);
- Social benefits (e.g. positive socialisation effects such as expanded social networks and social support systems and better peer relationships);
- Benefits related to athletic retirement and adaptation in life after sport (e.g. better career/retirement planning, shorter adaptation period, prevention of identity crisis);
- Enhanced future employment prospects (e.g. higher employability and access to well-paid jobs).

Athletes who opt for this career seem to be better integrated, have a more balanced life, tend to find a fulfilling job at the end of their sporting career and are more prepared for life after sport (Tekav et al., 2015; Torregrosa et al., 2015). These findings highlight the beneficial and complementary nature of dual versus single sport trajectories with more resilient athletes, able to cope with academic/professional and sport transitions as a motivating challenge and not as a threat, preventing stressful situations, the abandonment of their sport and/or studies. Specifically, 27.7% of athletes who study and play sport show high resilience, compared to 10% of athletes who only play sport (Félix-Mena et al., 2021). In sport, individuals with higher resilience are associated with higher sport performance and success (Fletcher & Sarkar, 2013), better use of coping strategies (Yi et al., 2005), and lower risk of disorders and higher well-being in their discipline (Hosseini & Besharat, 2010).

Likewise, in the research carried out by Félix-Mena et al. (2021), with regard to burnout syndrome, 81.25% of the evaluated athletes presented related symptomatology. However, the averages found suggest that elite athletes who do not combine their studies with their sporting career are those who present greater symptoms related to physical and emotional exhaustion, which is caused by high demands in the competitive environment, low personal fulfilment due to a lack of success and professional growth and a devaluation of sport, which can cause a loss of interest in the activity.

However, historically, studies have indicated that athletes who chose a dual career did not perform well academically (Adler & Adler, 1985; Purdy et al., 1982; Webb et al., 1998), although it was later found that when these athletes were given the opportunity to have a flexible study plan, their academic performance was as good as that of other students (De Knop et al., 1999). In fact, in subsequent research, it was found that, even though they needed more time to finish their studies, the academic level of athletes was higher than that of the general reference population (Albion & Fogarty, 2003; Conzelman & Nagel, 2003; González & Torregrosa, 2009; López de Subijana et al., 2015; Muniesa et al., 2010). In this regard, sports training system is dissociated from school/university training, creating, on many occasions, barriers for these young athletes to fully develop their athletic and student condition, so national policies combining education and training could represent a valuable model for the development of dual career of student-athletes (Lupo et al., 2015) as well as an effective capability of sport organisations to negotiate with educational bodies their admission procedures, examination schedules and tutoring, which could promote academic success of elite athletes (Aquilina & Henry, 2010; Henry, 2013). The student-athletes are expected to perform academically as any other student in order to obtain their grades and degree, although they may require an additional year in order to get it (Defruyt et al., 2019).

Despite the benefits mentioned above, there are currently a significant number of barriers to the development of dual careers that sometimes limit or prevent their effective development. These barriers can be divided into two broad categories: those external to the athlete and those that occur internally (López de Subijana et al., 2015). Regarding the external ones, the priority concern seems to be the lack of flexible structures to adapt academic and sport development within the dual career (Brustio et al., 2020; Da Costa et al., 2021; Fuchs et al., 2016), a fact related to the inability to adequately manage study and training time. This lack of time to develop a dual career with guarantees is a problem that affects almost half of student-athletes (Stevens et al., 2013) and this fact can lead to a feeling of inadequacy that has a negative impact on sports performance and academic results (Papanikolaou et al., 2003).

This is especially pronounced in student-athletes during the first year of university, as the transition from secondary to higher education brings additional stress due to an increased workload (Gómez et al., 2019, leading to student-athletes demanding an adaptation of the academic and competitive calendar to optimise their medium- and long-term planning (Pink et al., 2018; Sánchez-Pato et al., 2017) or receiving the right tools to teach themselves how to manage their time effectively (Cosh & Tully, 2015).

Another major obstacle to a dual career is the problems derived from funding (Condello et al., 2019) since, although a large number of athletes currently receive some type of institutional scholarship (Morris et al., 2021), its award is usually conditional on obtaining good sporting and academic results, so this situation can generate additional stress on the subject for not achieving the achievements and goals that are required of them (Gavala-González et al., 2019). In the absence of scholarships or other sources of income, the financial costs of a sporting and academic career may be assumed by the family (González & Torregrosa, 2009). This fact may pose an additional barrier to the development of the dual career in case parents or legal guardians do not have the purchasing power to afford it (Li & Sum, 2017).

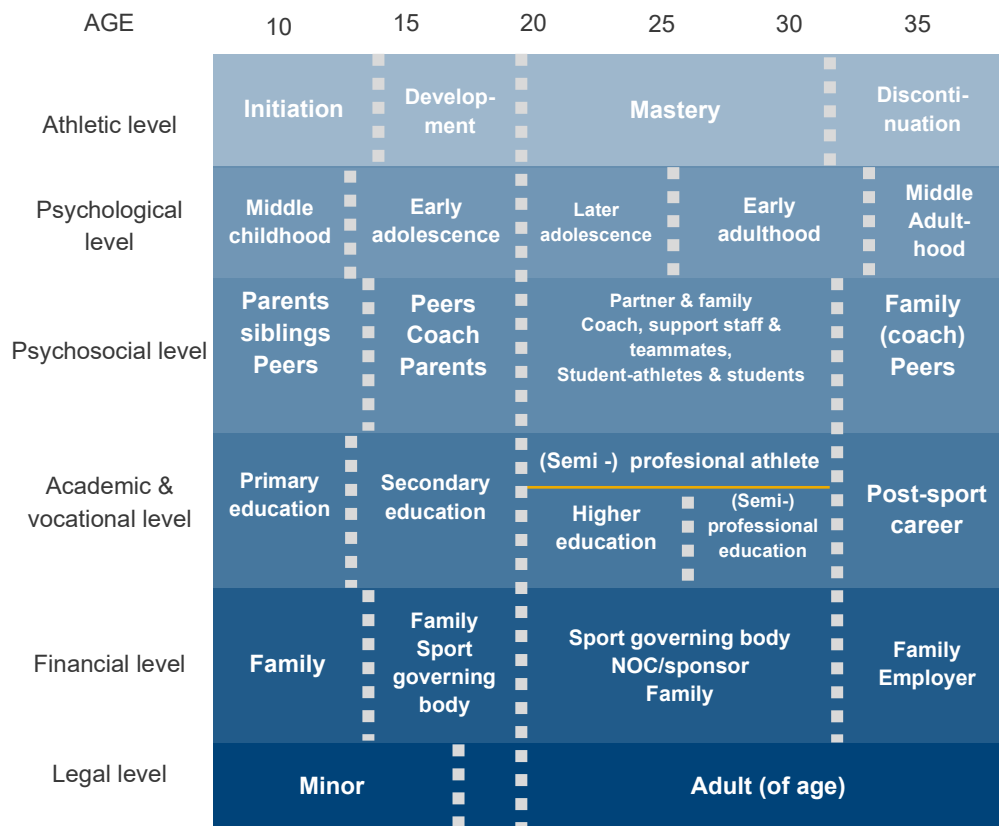
Finally, in terms of barriers within the athlete, stress management is a particularly sensitive area, with high-level athletes being more prone to mental health disorders compared to the general population (Rice et al., 2016). Park et al. (2013) identified 15 critical factors that could increase stress in student-athletes, including the occurrence of injuries, health problems, control over their life, self-perception, relationship with their environment, changes in their life or level of achievement in their career, which would join those already mentioned such as identity, financial situation, retirement decision or educational situation. With regard to the latter, periods of competition or exams can lead to acute episodes of stress that can even lead to the athlete-student dropping out of dual career programmes (Baron-Thiene & Alfermann, 2015). Taking into account that a greater number of these subjects consider themselves to be athletes rather than students (Cartigny et al., 2020), it has been found that in situations of high stress they tend to prioritise the sporting dimension over the academic one, which has a negative impact on their performance as students (Cosh & Tully, 2014).

2.4. Models for the implementation of dual careers

In view of the above, and in order for the implementation of the dual career to be successful, it is necessary to take into account the athlete from a holistic point of view in terms of learning models, organization and structuring of experiences offered to these persons (Aquilina & Henry, 2010; Platts & Smith, 2009) that is, although the evolution of the sports career has clearly differentiated phases: initiation, learning, beginning of the competition, competition at the highest level and sports retreat (Stambulova, 2003), there are other dimensions of great importance in the development of the person coexistence. The following are the two most common athletic career models used to understand the different phases and factors affecting the athlete: the *Holistic Athletic Career Model* (HAC-model) (Wylleman, 2019) and the *Athletic Career Transition Model* (Stambulova, 2003).

The Holistic Athletic Career Model incorporates the athletic career as a whole, (including the post-athletic career) as well as the stages and transitions that athletes face over six levels of development: athletic, psychological, psychosocial, academic and vocational, financial and legal. The athletic level represents four stages: 1) *initiation*, when the young athletes are introduced to their sports, 2) *development*, when they are recognized as talents and their training and competition grow more intensive, 3) *mastery*, when the athletes begin to compete at the highest level, and 4) *discontinuation*, when they transit out from competitive sport. The second layer is the psychological level which reflects the primary stages and transitions from childhood to adolescence to young adulthood. The third layer is labeled the psychosocial level, and it focuses on the individuals who are perceived by the athletes as being important during different stages (coaches, parents, family, partners and teammates, other individuals from a surrounding network, such as teachers, etc.). The fourth layer is the academic and vocational level, which shows the different educational, academic or job stages, parallel to the athletic career. The fifth layer is the financial level which reflects the athletes' financial support through and after the athletic career. And finally, the sixth layer represents the individual's legal level, which puts focus on the athletes' legal rights and duties (Wylleman, 2019) (Figure 6).

Figure 6
The Holistic Athletic Career Mode



Note. This figure shows how the holistic athletic career model incorporates the athletic career as a whole including the post-athletic career.

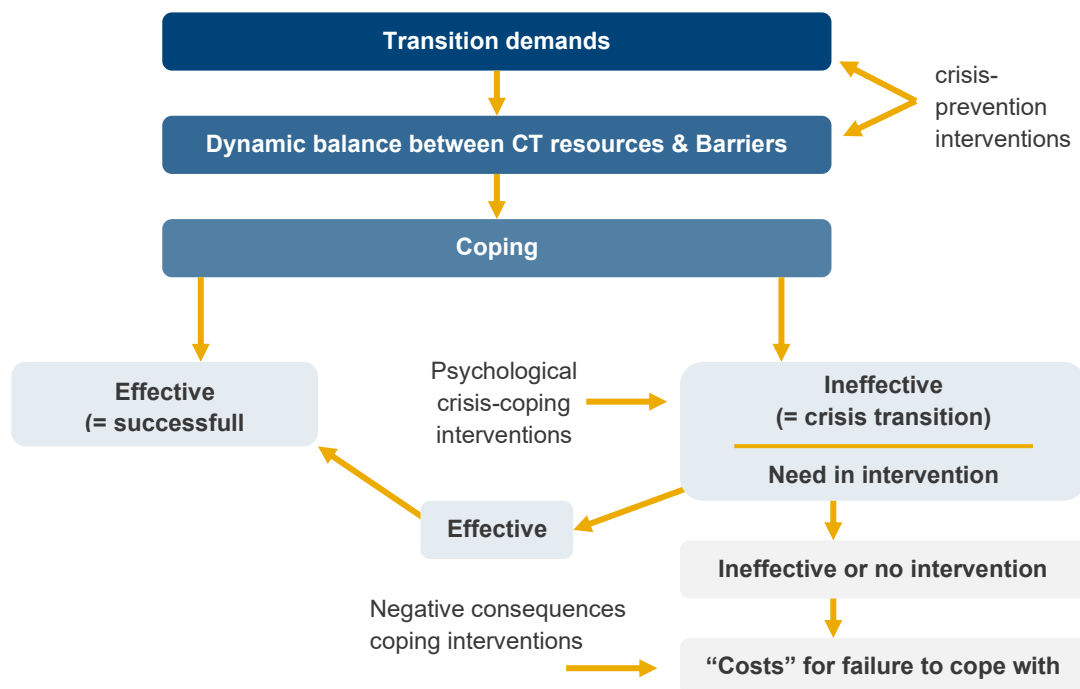
Source: Wylleman, 2019.

The second model is the Athletic Career Transition Model (Stambulova, 2003), that depicts the career transition as a process comprising of an individual's effort to cope with a set of demands through the mobilization of internal (e.g., an athlete's knowledge) and external (e.g., social support) resources. In this respect, different transitions in the academic/professional environment appear in an athlete that attract the attention of researchers: transition to an elite sport school, to a university and to a post-sport and/or post-academic life (Stambulova et al., 2020).

These demands may create conflicts within an athlete between what he/she must do and what is capable of doing. Once confronted with such a transition, or conflict, the athlete must find strategies to cope with it. However, there are also transitions which could be coped with if the right type of resources is possessed.

The resources and barriers explained by the model may be internal as well as external and they include factors that could interfere with effective coping. Internal barriers include difficulties in combining one's sport and education, or work, whereas personal transitional resources could include internal factors that helps the athlete in overcoming challenges, such as their knowledge, personality and motivation. External transitional barriers may include outside pressure figures that could take away from one's ability to properly focus on one's tasks, financial matters for example, whereas external resources could include an athlete's ability to receive support from others, such as one's trainers, family members or teachers, in order to resolve these processes. The model predicts two primary transition outcomes: an effective and successful transition or an ineffective crisis transition. A successful transition is the result of an effective coping that fits well between the demands of the transition along with the athlete's coping resources and strategies (the most favourable transition pathway). However, a crisis-transition is the outcome of ineffective coping, which can be caused by a lack of resources, excessive barriers or by using ineffective coping strategies (Stambulova, 2003) (Figure 7).

Figure 7
The Athletic Career Transition Model



Note. This figure shows a model by Stambulova of an athletic career transition.

Source: Stambulova, 2003.

As can be seen in the models detailed above, the dual career is not a path travelled alone by the athlete, as the person responsible for all his/her actions, but rather there are several agents that can affect (positively or negatively) the correct development and implementation of the dual career. In this regard, coaches and applied practitioners can take an educational approach by teaching their athletes from the end of the initiation stage transition-related competences such as knowledge, skills, attitude, experiences as part of their training, and an intervention approach, such as career support services, career transition programs to support their athletes' personal growth, balance their lifestyles, and optimize their post-athletic career lives (Wylleman et al., 2013). According to this., it is of great importance for the trainers to possess the correct knowledge and competences suitable for athletes involved in dual careers, to promote performance both in academics and sports (Riksidrottsförbundet, 2018). In line with this, the pursuit for a balanced lifestyle of student-athletes should be acknowledged by the coaches, as the consequences of being unable to fulfil the dual career aspiration and demands could enhance the risks of injury, overtraining, as well as different forms of mental illnesses (Schinke et al., 2018). In a recent study made by Ronkainen et al. (2018), it is stated that the essential duty for a coach is to focus on the athletic development and it was further concluded that the coaches do acknowledge the importance of pursuing an academic career, but that they lacked the knowledge of how to forward this acknowledgement to the student-athletes.

Related to this, Mageau and Vallerand (2003) found that coaches were seen as having an essential impact on the student-athletes, both in and outside of sports, and sometimes adopted a mentoring role as a supporter for the student-athlete in their dual career lives (Debois et al., 2015). Furthermore, a need for clear communication between school, academic staff, club and coaches has been expressed among student-athletes, to be able to better handle both academic and athletic demands (Knight et al., 2018). Some coaches claimed that the communication was not their responsibility at all (Harwood & Knight, 2015), while other coaches stressed the need to furnish a good relationship to their athletes, to be able to have a greater impact on the athletes and their personal development (Ronkainen et al., 2018).

2.5. Potential of dual career in high-level disabled athletes

Scientific research has not yet focused on promoting Dual Career for athletes with disabilities. Publications or studies on this subject are practically non-existent, which makes it an unexplored field, but one on which there is an urgency

to act. In high-level disabled sport it is necessary to develop sports skills that are on a par with those of their non-disabled counterparts. This means investing many hours of hard work and training to achieve the performance required to compete at the highest level. This results in these athletes having greater needs arising from their abilities and therefore showing a greater risk of social exclusion as they are unable to reconcile their demanding sporting life with academic training in order to ensure a secure future.

The development of elite disabled sport has been remarkable and must be placed in a broader context of progress and social integration (Thomas & Smith, 2009). Dual Career is a necessary step forward in this process. Top-level sportsmen and women possess valuable personality traits and attitudes such as commitment and leadership, which can add value to their university experience. These skills can materialize in a higher performance of the student-athlete in his academic progress (Stambulova, 2016). The Dual Career is also a challenge for universities and for their obligation to offer teaching and learning models updated to the needs of an increasingly inclusive society.

Disabled athletes are a heterogeneous group in terms of type and degree of impairment. In the field of sports, they are grouped in the categories of: physically disabled, visually disabled, hearing impaired, intellectually disabled and persons with cerebral palsy. This variety of ranges implies an added effort to provide athletes with tailor-made advice that meets their needs and helps them to achieve their goals. The teaching-learning process must be supervised and monitored by expert staff trained for this task. Universities must prepare the structures - physical and organizational - necessary to eliminate any barriers that complicate the university life of athletes with disabilities. It must also design protocols and good practice guidelines that establish a framework that avoids random actions and uncertainties. Teachers must be trained to detect and act on the unique situations presented to them by their student-athletes with disabilities. They must also encourage the rest of the students to participate in those initiatives that seek their inclusion. The university community in general must collaborate to build a positive learning ecosystem that helps to create a safe and welcoming environment. In general, Dual Career is a holistic effort that involves all members directly or indirectly.

Previous experiences on Dual Career within the scope of Erasmus+ Sport projects have shown that the success of these programs does not depend only on the performance of the universities, but on the joint work of all the members of the sportsmen and women's relationship system who support them in all stages of their professional and personal life (Sánchez-Pato et al., 2018). Support structures should be understood as the result of cross-sectoral collaboration

between different stakeholders: sports federations, clubs, coaches and technical staff, institutions specialized in disability support and local governments. Their coordinated work and shared goal setting is a key aspect to create a solid support experience that identifies and acts upon the needs of student-athletes with disabilities.

In short, the joint integration of stakeholders together with universities can help the formation of a collaborative structure whose mission is to create effective, solid and lasting support for high-level student-athletes with disabilities to develop their talents in both sport and academia, with respect for their particular needs and adaptations. The promotion of Dual Career in this population group may inspire other students, with or without disabilities, through the transmission of positive values and attitudes. Sacrifice, persistence, overcoming of adversity or self-improvement are personal qualities especially highlighted in disabled athletes, which can enrich the functioning of a university classroom. At the same time, the presence of these athletes on campus can contribute to their social inclusion. University staff will become aware of the treatment of diversity and will improve their training to adapt their methodologies in an inclusive way. Universities will review their physical and organizational barriers to create campuses that do not limit the presence of persons with disabilities. All these synergies will help to create universities prepared to face the challenges posed by the European Union in terms of social inclusion and adapted sport. The success of the dual career of disabled athletes will not only help them to build a more stable and secure future but will also make them reference models to inspire other young disabled athletes to follow in their footsteps.

2.6. Quiz

1. Concerning the concept of dual career of student-athletes, select the INCORRECT answer:
 - A. Young elite athletes face several difficulties in combining sport with educational or work commitments.
 - B. European sport talents tend to either drop out of sport and prioritise education to prepare for future job opportunities or postpone the attainment of a degree.
 - C. Dual careers present themselves as the best option for a better transition to retirement.

D. The design of dual career programmes should respond to the general needs of the athletes, not individual ones.

2. Regarding the different paths the athlete can choose with respect his/her their sporting career, the parallel path refers to:

- A. The one dedicated exclusively to sport.
- B. The one in which sport and studies or work are combined, giving priority to one or the other depending on the specific circumstances.

C. The path in which sport and studies or work are equally important.

D. All of them are incorrect.

3. Which of the following statements is INCORRECT about the EU Guidelines on Dual Careers of Athletes?

- A. It serves as a common framework for EU Member States due to the large number of specifications and regulations related to talented and elite athletes that exist.

B. They represent a mandatory legislative regulation with which all EU member states must comply.

- C. These guidelines are addressed primarily to policy makers in the Member States, as inspiration for the formulation and adoption of action-oriented national dual career guidelines.
- D. This document contains 36 guidelines concerning policy areas, the European dimension of dual careers in sport and its dissemination, monitoring and evaluation.

4. Which of the following athletics career model incorporates the athletic career as a whole taking into account the six levels of development (athletic, psychological, psychosocial, academic and vocational, financial and legal)?

A. Holistic Athletic Career Model.

B. Athletic Career Transition Model.

- C. Linear Path Model.
- D. Convergent Path Model.

5. In relation to the dual career of high-level athletes with disabilities (select the INCORRECT option):

A. Disabled athletes are a homogeneous group in terms of type and degree of impairment.

- B. The development of elite disabled sport has been remarkable and must be placed in a broader context of progress and social integration.
- C. Publications or studies on this subject are practically non-existent, which makes it an unexplored field.
- D. These athletes have greater needs arising from their abilities and therefore showing a greater risk of social exclusion.

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MODULE 3

**Disability, Disability categories and
Sports categories**

Silvia Duarte Amado¹

Zuriñe Ibarra²

María Delgado²

¹Fundación ONCE, Madrid, Spain.

²Comité Paralímpico Español, Madrid, Spain.

Corresponding author: Silvia Duarte Amado.

Email: slduarte@fundaciononce.es

3 STRUCTURE OF MODULE 3	
MODULE TITLE AND NUMBER	<ul style="list-style-type: none"> Module 3: Disability, disability categories and sports categories.
MODULE DESCRIPTION	<ul style="list-style-type: none"> In this module the purpose will be to raise awareness of rights related to disability, disability categories and sporting classifications, providing legal documents from official bodies that support this information.
LEARNING ACTIVITIES	<ul style="list-style-type: none"> The learning activities will include engagement with presentation content, review of case studies, paper reviewing and the completion of quizzes.
INTENDED LEARNING OUTCOMES	<ul style="list-style-type: none"> To develop mentors' understanding of the environment surrounding persons with disabilities with respect to the legal framework and their rights. To improve mentors' ability to know what needs student-athletes may have based on their type of disability. To develop a minimum knowledge in the mentors so that they have the ability to know about the sports that an athlete with a disability can practice.
TRAINING SOURCES and TOOLS	<ul style="list-style-type: none"> N/A.
ASSESSMENT and EVALUATION	<ul style="list-style-type: none"> Completion of 5 multiple-choice questions.
MODULE DURATION	<ul style="list-style-type: none"> 60 to 90 minutes.
EDUCATIONAL METHODS and TECHNIQUES	<ul style="list-style-type: none"> Engagement with presentations. Reading of related papers and policy documents. Engagement with quizzes related to the presentations.
ADDITIONAL RESOURCES	<ul style="list-style-type: none"> N/A.

MODULE 3: Disability, disability categories and sports categories

3.1. Introduction to Module 3

This module will cover content related to disability, disability categories and sporting categories/ classifications. The learning outcomes for this module are as follows:

- To develop mentors' understanding of the environment surrounding persons with disabilities with respect to the legal framework and their rights.
- To improve mentors' ability to know what needs student-athletes may have based on their type of disability.
- To develop a minimum knowledge in the mentors so that they have the ability to know about the sports that an athlete with a disability can practice.

3.2. Modern concept of disability

Many persons see disability as a condition that is inherent in the person—for example, a medical condition that requires the person to be in a wheelchair or to take medication. However, the modern concept of disability perceives disability as an interaction between an individual's personal condition (such as being in a wheelchair or having a visual impairment) and environmental factors (such as negative attitudes or inaccessible buildings) which together lead to disability and affect an individual's participation in society.

For example: Being in a wheelchair (personal factor) combined with living in a city with accessible buildings (environmental factor) leads to participation in the community on the same terms as someone who is not in a wheelchair: there is little or no disability.

Having an intellectual impairment (personal factor) combined with a belief in the community that persons with intellectual disabilities lack the capacity to vote (negative environmental factor) leads to exclusion from society and denial of the right to vote: there is a disability.

3.3. Disability Legislation

Persons with disabilities often are excluded from the mainstream of the society and denied their human rights. Discrimination against persons with disabilities takes various forms, ranging from invidious discrimination, such as the denial of educational opportunities, to more subtle forms of discrimination, such as segregation and isolation because of the imposition of physical and social barriers. Effects of disability-based discrimination have been particularly severe in fields such as education, employment, housing, transport, cultural life and access to public places and services. This may result from distinction, exclusion, restriction or preference, or denial of reasonable accommodation on the basis of disablement, which effectively nullifies or impairs the recognition, enjoyment or exercise of the rights of persons with disabilities.

Despite some progress in terms of legislation on the 20th century, such violations of the human rights of persons with disabilities were not systematically addressed in society. Most disability legislation and policies were based on the assumption that persons with disabilities simply are not able to exercise the same rights as non-disabled persons. Consequently, the situation of persons with disabilities often was addressed in terms of rehabilitation and social services.

All that perspective changed in 2006 with the Convention on Rights for Persons with Disabilities (CRPD), a benchmark document that works to ensure the enjoyment of human rights and fundamental freedoms by persons with disabilities. The purpose of the Convention is to promote, protect and ensure the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities, and to promote respect for their inherent dignity.

Task: Read the Overview of International Legal Frameworks for Disability Legislation published by the UN in 2006. Important: This document includes all the international legislation previous to the CRPD.

<https://www.un.org/esa/socdev/enable/disovlf.htm>

You also can read pages 21 to 23 of the Convention on Rights of Persons with Disabilities: Training Guide.

https://www.ohchr.org/sites/default/files/Documents/Publications/CRPD_TrainingGuide_PTS19_EN_Accessible.pdf

3.4. The Convention on Rights of Persons with Disabilities

The Convention on the Rights of Persons with Disabilities and its Optional Protocol (A/RES/61/106) was adopted on 13 December 2006 at the United Nations Headquarters in New York and was opened for signature on 30 March 2007. There were 82 signatories to the Convention, 44 signatories to the Optional Protocol, and 1 ratification of the Convention. This is the highest number of signatories in history to a UN Convention on its opening day. It is the first comprehensive human rights treaty of the 21st century and is the first human rights convention to be open for signature by regional integration organizations. The Convention entered into force on 3 May 2008.

The Convention follows decades of work by the United Nations to change attitudes and approaches to persons with disabilities. It takes to a new height the movement from viewing persons with disabilities as “objects” of charity, medical treatment and social protection towards viewing persons with disabilities as “subjects” with rights, who are capable of claiming those rights and making decisions for their lives based on their free and informed consent as well as being active members of society.

The Convention is intended as a human rights instrument with an explicit, social development dimension. It adopts a broad categorization of persons with disabilities and reaffirms that all persons with all types of disabilities must enjoy all human rights and fundamental freedoms. It clarifies and qualifies how all categories of rights apply to persons with disabilities and identifies areas where adaptations have to be made for persons with disabilities to effectively exercise their rights and areas where their rights have been violated, and where protection of rights must be reinforced.

Task: To read the entire Convention on Rights of Persons with Disabilities:

<https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-persons-disabilities>

You also can read on the reason behind the CRPD on the Convention on Rights of Persons with Disabilities: Training Guide.

https://www.ohchr.org/sites/default/files/Documents/Publications/CRPD_Training_Guide_PTS19_EN_Accessible.pdf

3.5. Types of disabilities

- **Physical disabilities**

A physical disability is one that affects a person's mobility or dexterity. A person with a physical disability may need to use some sort of equipment for assistance with mobility. It also includes people who have lost limbs or who, because of the shape of their body, require adjustments to be made to enable them to participate fully in society.

It's important to provide them with physical accessibility in buildings, furnishings, digital tools and other areas. Remember to provide supports, accommodations and adjustments according to the specificity of the physical disability and the needs of the persons.

- **Organic Disabilities**

In organic disability, it is the internal organs that are damaged, which is why it is associated with diseases that are not perceptible, such as cancer, digestive diseases (Crohn's, Ulcerative Colitis), cystic fibrosis, heart disease, etc.

As a general characteristic, these disabilities are characterised by periodic crises, requiring medication, medical follow-up and rest at home, which means that students are absent from class. Finding ways for them to continue their studies (classes, tests and other activities) despite these absences can be the key for their success.

- **Psychosocial disabilities**

A psychosocial disability can develop at any age and is often not apparent to other people. Mental disabilities are often the most misunderstood disabilities in the community, and peoples' attitudes may be based on prejudice and myth (e.g. schizophrenics are potentially violent).

Psychosocial disabilities can include stress-related conditions, major depression, bipolar disorder, anxiety, and schizophrenia. Depression is the most common non-psychotic mental illness (psychosis being a disorder which features the loss of contact with reality). Depending on the specific disability it's important to be flexible about time, evaluations and public presentations. It's also important to avoid stereotypes and patronizing attitudes.

- **Visual disabilities**

When we speak in general of blindness or visual impairment, we are referring to conditions characterized by a total or very serious limitation of visual function. In this sense, we must differentiate between persons with blindness and persons with visual impairment.

Persons with blindness are characterized by not having any visual impairment or only a slight perception of light (they may be able to distinguish between light and dark, but not the shape of objects).

Visually impaired persons are those who, with the best possible correction, could see or distinguish, but with significant difficulty, some objects at a very short distance. In the best of conditions, some of them can read print when it is of sufficient size and clarity, but generally more slowly, with considerable effort and using special aids.

We may also find persons who have impaired ability to identify objects in front of them (loss of central vision) or to detect objects to the side, above or below the eyes (loss of peripheral vision).

It's important to ask the person for the physical and digital support products they need. Blind people need help in the first few days to be able to walk and manage the daily routes involved in their training and education. Remind to avoid all the no oral language. If you are showing a picture in class, please describe it.

- **Hearing disabilities**

Deafness and hearing loss can be caused by a wide range of factors, including physical damage, disease during pregnancy, or exposure to very loud noises. There is a distinction between people who are deaf and those who have a hearing impairment. Those hearing up to three years of age (when language begins to develop) often have comparatively good speech and lip-reading ability.

Some of them would need subtitles in all the presentations, others need of a Sign Interpreter, and others need you speak clear and slowly, as they read your lips. Now, in Covid times, it's important to remember that masks damage the communication with people with hearing disabilities. Some persons with hearing disabilities have difficulties to talk, in that case you need to make an effort to understand, if that is not helpful, you always can ask them to write. It's important that you always focus your attention to the person with hearing disability and not to the interpreter.

How to deal with all disabilities:

- Be clear about their condition of PERSON over and above their disability, respecting their dignity at all times.
- Treat the person in a natural way, with respect, speaking directly to him/her, not to the person accompanying him/her, and with a normal tone of voice, avoiding prejudice and overprotection.
- Before helping a person with a disability, ask naturally if they need it and how you can do it.
- Avoid patronizing attitudes and facilitate their decision making.
- Individual differences, personal aptitudes, level of autonomy, etc., make each person have different levels of functioning, even if they have the same type of disability.
- Focus on the person's capabilities and not on his or her limitations. A positive view of persons with disabilities will help us to put ourselves in their place and maintain a positive place and maintain a quality relationship.
- Unless our relationship with the person with a disability is one of friendship or of a professional nature (health, medical, social, etc.). We should not inquire into the diagnosis of the disease or impairment.
- Encouraging the inclusion of persons with disabilities will improve their self-esteem and the concept that the rest of society has of them.
- It is essential to emphasize the person above all else, to take into account what he/she expects, needs, feels, likes, etc. For this reason, it is necessary to promote and encourage them to express their own points of view and to recognize that they have the right to express their own opinions.

3.6. Disability and sports

The unique ability of sports to transcend linguistic, cultural and social barriers makes it an excellent platform for strategies of inclusion and adaptation. Furthermore, the universal popularity of sport and its physical, social and economic development benefits make it an ideal tool for fostering the inclusion and well-being of persons with disabilities.

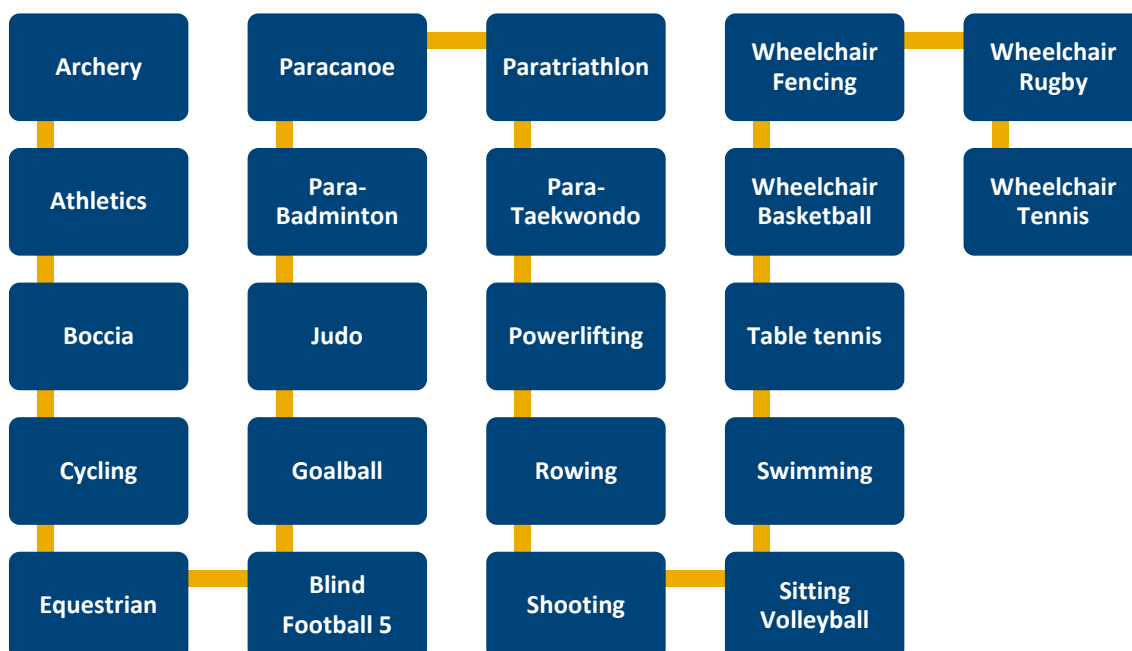
The first categorization when talking about disability and sports is the distinction between sports for people with disabilities and inclusive sports.

- Inclusive Sport allows physical activity and recreational practice together with persons with and without disabilities, it is adjusted to the possibilities of the people who practice it, but always maintaining the purpose or objective of the sporting speciality that is being practiced.
- Sports for people with disabilities consists of, as the word itself says, adapting a sport speciality to the needs of the person with a disability and sometimes even being able to modify (spaces, regulations or materials) so that they can practice it. There are currently 28 Paralympic sports selected by the International Paralympic Committee: 22 in summer and 6 in winter.

When talking about Paralympic Sports another categorization can be made: Summer Paralympic sports (Figure 8) and winter Paralympic sports (Figure 9).

PARALYMPIC SUMMER SPORTS

Figure 8
Paralympic Summer Sports.



Note. This figure shows the different Paralympic Summer Sports.

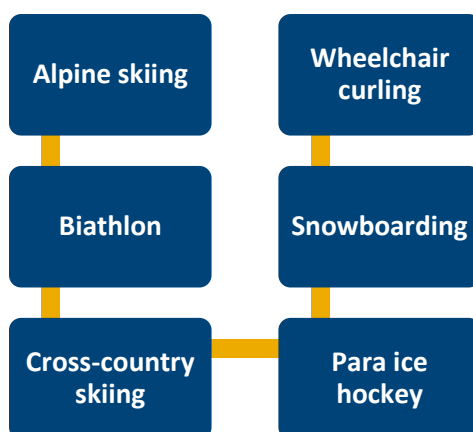
Some of the curiosities of these sports are:

- Archery already played at the first Games in Stoke Mandeville in 1948, it has been part of the Paralympic Games programme in all its editions.
- In Boccia athletes with physical disability and cerebral palsy are eligible.
- In Football 5 the goalkeeper has no disability, in addition, the crowd must remain silent throughout the match, to allow both teams to hear the sound of the ball.
- Goalball is played by blind or visually impaired athletes with a sound ball.
- Para-canoe competitions for persons with disabilities only include stillwater canoeing in two types of individual boats: the kayak and the canoe.
- Paratriathlon consists of three disciplines: open water swimming, road cycling and running.

- In powerlifting the bench press is performed by athletes with physical disabilities, athletes are grouped according to their body weight and not their disabilities.
- Sitting Volleyball is played on a court divided by a net 1.15 centimeters high for the men and 1.05 centimeters high for the women.
- In Wheelchair Basketball the rules are virtually the same as those of foot basketball, the only difference is that players must bounce or pass the ball after pushing the chair twice.
- In Wheelchair Fencing the fencers compete in wheelchairs, which are anchored to the ground. Three weapons are used in Paralympic fencing.
- Wheelchair Rugby is played by two teams of four players on an indoor court the size of those used in basketball, wheelchair rugby is played with a white ball identical to those used in volleyball.
- Wheelchair Tennis follows the same rules as able-bodied tennis, except for one small modification: the ball is allowed to bounce twice, and only the first bounce must be inside the lines of the court.

WINTER PARALYMPIC SPORTS

Figure 9
 Winter Paralympic Sports



Note. This figure shows the paralympic winter sports.

Some of the curiosities of these sports are:

- Paralympic alpine skiing includes the downhill, super-giant, giant slalom, slalom and super-combined events, which consists of a super-giant and a slalom run.
- Biathlon sport mixes cross-country skiing and shooting. In the Paralympic biathlon athletes compete in three groups, according to their type of disability: Visually Impaired, Athletes competing in a standing position and Athletes competing in a chair.
- Cross-country skiing was one of only two sports contested at the first Paralympic Winter Games in Örnköldsvik in 1976.
- In Para ice hockey instead of skates, players use sleds that allow the puck to pass under them. In addition, two sticks are used that allow the competitor to move around the field and shoot at the goal.

It should be noted that there are other sports for people with disabilities that are not included in the program of the Paralympic Games but are practiced in a regulated manner (Move United, 2021).

3.7. Quiz

1. Which is the most important international legislation related to disabilities?
 - A. The Convention on Disabilities.
 - B. The Convention on Rights of People with Disabilities.
 - C. The Convention on Rights of Persons with Disabilities.**
 - D. The Disabilities Convention.
2. Which is the optimal model of disability?
 - A. Medical model.
 - B. Charity model.
 - C. Social / human right model of disability.**

D. All of the above.

3. Is there a difference between the terms adapted sport and inclusive sport?

A. Yes, there is a difference, inclusive sport refers to a more recreational practice and adapted sport refers to adapting a sport discipline.

B. The term changes depending on the country we are in.

C. Yes, there is a difference, inclusive sport refers to adapting a sport discipline and adapted sport refers to a more recreational practice.

D. No, it is the same.

4. How many sports are currently selected for the Paralympic Games?

A. 21.

B. 28.

C. 27.

D. 44.

5. During football 5 games, how should the public conduct themselves?

A. They should cheer as much as possible as in any sporting event.

B. The crowd must remain silent throughout the match, to allow both teams to hear the sound of the ball. Shouting and clapping are only allowed when a goal is scored.

C. They can only cheer if the team allows it.

D. It is forbidden to speak or emit sounds at any time during the match.

3.8. Resources

- *External Videos:*

Archery | Tokyo 2020 Paralympic Games

<https://www.youtube.com/watch?v=nB4xJMt1aLY>

4x100m Universal Relay | Final | Athletics | Tokyo 2020 Paralympic Games

<https://www.youtube.com/watch?v=dSwAl64kC2U>

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[10/2020_06%20Explanatory%20Guide%20to%20Classification_Summer%20Sports.pdf](https://www.paralympic.org/sites/default/files/2020-10/2020_06%20Explanatory%20Guide%20to%20Classification_Summer%20Sports.pdf)

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[%20Para%20Badminton%20General%20Competition%20Regulations%](https://extranet.bwfbadminton.com/docs/document-system/81/1466/1471/Section%205.5%20-%20Para%20Badminton%20General%20Competition%20Regulations%20-%202011%20May%202022%20V2.0.pdf)

[20-%202011%20May%202022%20V2.0.pdf](https://extranet.bwfbadminton.com/docs/document-system/81/1466/1471/Section%205.5%20-%20Para%20Badminton%20General%20Competition%20Regulations%20-%202011%20May%202022%20V2.0.pdf)

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[international-Boccia-Rules-%E2%80%93-2021_2024-v.1.1_Updated.pdf](https://www.worldboccia.com/wp-content/uploads/2021/10/BISFed-international-Boccia-Rules-%E2%80%93-2021_2024-v.1.1_Updated.pdf)

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World Para Snowboard (2021, October). *Rules and Regulations 2021/2022*.

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**PARA
LIMITS**

MODULE 4

Individual inclusion, mentoring and
single needs

Antonino Pereira

Abel Figueiredo

Francisco Mendes

Instituto Politécnico de Viseu, Viseu, Portugal.

Corresponding author: Antonino Pereira.

Email: apereira@esev.ipv.pt

4 STRUCTURE OF MODULE 4	
MODULE TITLE AND NUMBER	<ul style="list-style-type: none"> Module 4: Individual inclusion, mentoring and single needs.
MODULE DESCRIPTION	<ul style="list-style-type: none"> From detection of single needs of student-athlete with disabilities to the individual inclusion, this module will raise the biopsychosocial categories, crossing with objectives domains to prepare mentor for tasks to facilitate inclusion and to empower the athlete on the academic campus.
LEARNING ACTIVITIES	<ul style="list-style-type: none"> Engagement with presentation content. Reading of related papers and policy documents. Completion of quizzes.
INTENDED LEARNING OUTCOMES	<ul style="list-style-type: none"> To develop the mentor's understanding of single inclusion on the basis of biopsychosocial model. To develop and identify the mentoring process principles (applicable to mentor's institution). To develop the identification of single needs of the student-athlete on different areas.
TRAINING SOURCES and TOOLS	<ul style="list-style-type: none"> Online.
ASSESSMENT and EVALUATION	<ul style="list-style-type: none"> Completion of 5 multiple-choice questions.
MODULE DURATION	<ul style="list-style-type: none"> 60 to 90 minutes.

EDUCATIONAL METHODS and TECHNIQUES	<ul style="list-style-type: none"> • Engagement with presentations. • Reading of related papers and policy documents. • Engagement with quizzes related to the presentations.
ADDITIONAL RESOURCES	<ul style="list-style-type: none"> • N/A.

MODULE 4: Individual inclusion, mentoring and single needs

4.1. Introduction to Module 4

This module will cover content related to the individual inclusion of the student-athlete with a disability. Specifically, content will be covered in relation to mentoring, communication strategies and how the needs of the student-athlete can be analysed and detected. The learning objectives are as follows:

- To develop the mentor's understanding of single inclusion on the basis of biopsychosocial model.
- To develop and identify the mentoring process principles (applicable to mentor's institution).
- To develop the identification of single needs of the student-athlete on different areas.

4.2. Individual inclusion

International regulations and documents

The person is, for the Law, the unavailable (Bronze, 2002). In other words, the Law is constituted as an order where each one of us is seen as a subject with an inviolable ethical dignity. It was certainly illuminated by these references that the Universal Declaration of Human Rights was instituted, which expressly enshrines in its article 1 that "all human beings are born free and equal in dignity and rights". And, seeking to strengthen this idea, it maintains that this equality is materialized, and extends back, to all aspects of the life of each one of us, including in the field of education (Article 26) and participation in the cultural life of the community (article 27).

On the other hand, sustaining positive discrimination aiming at equality of ends, Resolution 3447 of the United Nations General Assembly (1975) proclaimed the Declaration of the Rights of Disabled Persons which, in its article 24.:

- The full development of human potential and sense of dignity and self-worth, and the strengthening of respect for human rights, fundamental freedoms and human diversity; b) The development by persons with

disabilities of their personality, talents and creativity, as well as their mental and physical abilities, to their fullest potential.

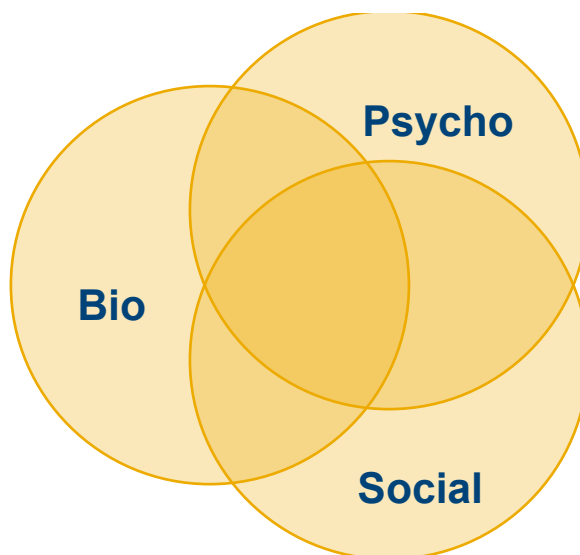
- Effective individualized support measures are provided in environments that maximize academic and social development, consistent with the goal of full inclusion.

Diversity. The bio-psycho-social paradigm and multifactorial interpretation

Although Grinker (1964) began by using the term biopsychosocial to emphasize the bio dimension against psychoanalytic orthodoxy (Ghaemi, 2009), it is George Engel (1977) who establish and develops the modern biopsychosocial model: “A biopsychosocial model is proposed that provides a blueprint for research, a framework for teaching, and a design for action in the real world of health care” (Engel, 1977, p.136). This model established the biopsychosocial paradigm validated and elaborated by the scientific discoveries of the past decade (Garland & Howard, 2009). In a way, this model is the basis to explain and understand the diversity of the human development.

In Sport and Physical Activity, the biopsychosocial model has had various notes, from general participation (Wiedemann et al., 2014) to elite competitive performance (Thiel et al., 2015), and it is a link for multifactorial approaches on training and education (Figueiredo & Afonso, 2010) (Figure 10).

Figure 10
 Human dimensions: Biopsychosocial



Note. This figure shows the relationship in human dimension, Biopsychosocial.

Source: Figueiredo, 2009, 2021.

In a micro intervention during exercising practice throw intentional process (training), and in an interfactorial, multifactorial or transfactorial analysis, we can link human dimensions with classical training factors (Bompa, 1990, 1999) and classical task realization conditionings (Famose, 1990). The understanding of those dimensions is better explained in Sports and Education if we connect them with training factors that are developed in a certain degree of coherence with.

The first training factors are more linked with biological aspects, as the “physical” training and the “technical” training. Physiology and biomechanics in sport developed for better interpretations of these factors. Very important on team sports, “tactical” training developed for modeling better how to deal with decision making training, and motor control and learning sciences developed in pair with these needs. In many modern competitive sport events, psychological control of stressful emotions as anxiety become visibly decisive and, as much sport becomes economically valuable, psychology factor become relevant for more reasons than pedagogical, and if modern pedagogy has been very psychologically influenced, as shown on three learning domains of Bloom’s taxonomy (cognitive, affective and psychomotor) developed since 1956, sport psychology is a very shape way of looking scientifically at the sport training. Finally, because sport is social involving norms, values and symbols, it has been evidenced and sociology of sport linked with cognitive stimulus on understanding social, and other relevant aspects of practice, based the theoretical factor over the classical pyramid of Bompa (1990, 1999).

It is remarkable that in certain moments we noticed a tendency to give an order of coherence to the different factors. As has been shown (Figueiredo, 1996), for Tudor Bompa there were five fundamental factors in training: physical, technical, tactical, psychological and theoretical. technique represent the basis on which the sporting performance is built. As the athlete acquires a more perfected technique, emphasis is placed on tactical preparation. And when tactical preparation is acquired, the athlete must emphasize psychological preparation (Bompa, 1999).

In this pyramid of training factors expressed in 1990, there is “a certain bodily centrifugal relationship or, in better terms, spiritually centripetal relationship, continuing to emerge from the body-spirit dualism in which the first (body) serves to qualify the second (spirit)” (Figueiredo, 1996, p. 61).

This modeling of apparent qualitative rise from the “res extensa”, to the “res cogitans”, ceased to exist in the end-of-the-century edition (Bompa, 1999), assuming an adaptive opening to the more integrated models that, in that previous form, exposed the real difficulties of methodological application in

training, since the exercise appears as a dynamizer, at once, of all the factors described there.

Finally, this reductionist perspective is recently taken up by Bompa, when he mentions that “for too long, training methodology and research in sports science focused, often in isolation, on their specific areas of concern” (Bompa et al., 2019, p. 12), also corroborating this tendency by assuming that we should look at an athlete as “a complex being that requires not only physical, technical and tactical training but also an integrated periodization, in which psychological training and nutrition plans are integrated with other activities” (Bompa & Buzzicjelli, 2019, p.110).

It is noted in that pyramid, as well as in the current versions of Bompa training factors and periodization, that no known emphasis is given to the social factor along with the other important factors in the internal load, either in the effort or in the recovery (physical, technical, tactical and psychological), despite within the framework of the so-called theoretical training factor, the view that “the coach must educate the athlete in the following areas [...]” that we summarize here: (i) rules and regulations, (ii) scientific bases for understanding the technique and (iii) biomotor skills, (iv) how periodization is used in preparation for competition, (v) physiological adaptations to training, (vi) causes, prevention and treatment of injuries, (vii) sociology of sport as relations of group, (viii) psychological aspects including communication skills, behavioral modification, stress management and relaxation techniques, as well as (ix) the effect of nutrition on adaptations to training and competition (Bompa & Buzzichelli, 2019, pp. 68-69).

Thus, given relevance to social aspects, when connecting the social with a more theoretical dimension, and even linked to more “educational” dynamics, the notion emerges that this theoretical framework of stimulation of the sports practitioner and competitor can be connected more to a level of knowledge than at the level of skills that tend to be seen more as physical, technical and tactical. But this is not the intention of the authors since, in this theoretical factor, and as seen at the end of the previous paragraph, the educational intention is placed on the biopsychosocial whole. What seems clear there is that social competences are not understood as executive alongside physical, technical, tactical and psychological ones. In other words, they do not understand themselves as capable of having a task nature with capacities such as strength, speed, resistance, flexibility that are for the physical as they could be for the social (Figure 11).

Figure 11
Training Factors in a pentafactorial model.



Note. This figure shows the different training factors in a pentafactorial model. Those factors consist of social, psychological, tactical, technical and physical training.

Source: Bompá, 1990; Figueiredo, 1996

As some examples of visible social skills in sport, we have the energy with which the practitioner respects and acts in solidarity with a teammate or opponent in the game, the energy with which he participates and cooperates when others lead the task, the energy with which he controls himself and he respects himself and others in the face of failure or defeat in comparison with the success of others, as well as the energy with which he surrenders to values of respect for the rules, for the space of practice and for nature.

4.3. Development of the figure of the mentor

Concepts

In recent years, the extant literature on mentoring has extended into the sport domain. Results from this current literature review demonstrate that mentoring often leads to positive outcomes in the sport community. However, challenges exist in the establishment of mutually beneficial mentoring relationships (Narcotta et al., 2009). Isidori (2018) argues that there are differences between the concept of mentor and tutor. The aim of these two activities that work together is to help and support, and to promote the achievement of results, encouraging and inculcating positive attitudes in student-athletes. For this author, tutor and tutoring are two academic terms that define the figure and action of people whose

objective is to help individuals who are behind in their studies or who have problems when studying in large groups. A tutor must be competent in the main subjects taught to student-athletes.

Mentoring and mentoring, on the contrary, are terms that refer to a larger and more mature person who acts as an example to encourage and offers students opportunities to improve their skills in daily life. For student athletes, mentors serve as role models. A mentor is more of a guide than a teacher. Mentoring focuses on daily life skills and provides help and assistance to athletes, who are encouraged to live the experience of studying and learning at the university as something positive. The mentor is the person who gives advice, shares knowledge and experiences with athletes and motivates them to study with a method based on low pressure and self-discovery.

However, other authors defend other perspectives. Thus, mentoring is conceptualized as a dynamic and interactive relationship of professional exchange between individuals with different levels of experience, where the most experienced (mentor) guides and assists the new or training professional (mentee) with the purpose of promoting development during the career of the mentee. The figure of the mentor as the supporting person who guides and accompanies mentees in their professional development also performs a wider function from those of tutors or coaches (Jones et al., 2009).

The mentor works on the various dimensions that affect the student-athlete, such as psychological, psychosocial, financial, educational and performance (Cosh & Tully, 2014). Therefore, the Mentor will need to interfere, negotiate and persuade the stakeholders, and align the different interests and expectations, looking after the interests of the mentee and to overcome the different barriers and difficulties, and if possible and for greater success, generating an environment of cooperation and growth hand in hand with the stakeholders (Ryan et al., 2017).

This role represents paramount support for students to develop the necessary skills to achieve optimal performance along their career, and mentoring acquires great importance for those students who are part of dual career programs and who have additional difficulties to develop their maximum potential in the academic and sports paths (López-Flores et al., 2021). Therefore, the mentor could provide guiding services at different educational or sport centres, public institutions, or as freelancers, and who will be linked primarily to the student-athlete. (López-Flores et al., 2021). The mentors serve as a bridge of understanding between a university campus and a student (Giust & Valle-Riestra, 2017). Giust and Valle-Riestra (2017) views mentors as potential agents of change.

As we can see, there is still no clear and consistent definition of mentoring, on the contrary, there is some confusion between the figure of the mentor, tutor or coach (Parsloe & Wray, 2000). In this sense, in this course we propose the concept of mentor-tutor as someone who intervenes in several dimensions that affect the student-athlete, such as psychosocial, financial, educational and performance.

Importance

The mentor, with the right knowledge and sensitivity towards the special circumstances of athletes with disabilities, can make a difference in terms of maximizing the role these athletes can play in sport and in society, even becoming role models for young athletes to follow (López- Flores et al., 2021). This role represents paramount support for students to develop the necessary skills to achieve optimal performance along their career, and mentoring acquires great importance for those students who are part of dual career programs and who have additional difficulties to develop their maximum potential in the academic and sports paths (López-Flores et al., 2021).

Some studies have reported the importance of both quality and quantity of mentoring relationships. Examination of the attributes attributed to successful mentors and mentees represent an area for further study (Narcotta et al., 2009).

Tutor - Functions and recommendations

There are three theoretical principles to consider when it comes to mentoring (Sánchez-Pato et al., 2018):

- Principle of integration: it aims to provide all academic, professional and sporting services and activities that operate in a divided way in different centres, departments and institutions.
- Principle of personalization: the program is structured in order to outline an itinerary for each athlete.
- Principle of proactivity: the program works proactively, anticipating future needs.

In more concrete and practical terms, the model should work as follows: (1) detection and identification of the student-athlete's needs; (2) guidance and

advice during the academic career, contemplating their future work, working simultaneously both careers (sports and academic).

There are several authors who point out the tutor's functions as well as intervention strategies. Among them, we highlight the following (Sánchez-Pato et al., 2018; Sánchez-Pato et al., 2018):

- Help the student-athlete to achieve academic and sporting excellence;
- monitor academic and sporting activities and results;
- to promote the relationship between the students-athletes themselves, since they can help each other as they have similar needs;
- promote the use of new communication and information technologies in the tutor, athlete-student and teachers relationship;
- promote the relationship with coaches and teachers in order to create conditions for harmonizing academic and sporting careers.

The tutor functions/recommendations:

- Must maintain contact with the student-athlete and verify that he is doing it correctly, taking care not to exercise excessive control over him;
- must identify the needs of each one, defining a script adapted to each student-athlete;
- the tutor's support services must be classified as: a) educational (in the context of undergraduate and postgraduate courses); b) administrative; c) personal; d) professional and occupational (eg in career guidance; how to prepare a cover letter or curriculum vitae). In other words, to favour a path oriented towards future goals.
- to be concerned with the student-athlete's personal issues, since he needs comprehensive attention;
- must work to improve the organizational and planning capacity of sports-athletes in order to promote their sporting and academic activities;
- must work to ensure that the student-athlete is responsible for his/her progress;

- it should include evaluation protocols that allow it to monitor the participation of student-athletes in the program and their progress,
- should promote and rely on the figure of the student-tutor to provide the athlete-student with a more holistic training and wider help.

4.4. Communication strategies with the adapted student-athlete

Communication is a key component in a successful academic and sporting relationship.

However, we may encounter barriers in communication taking into account the role we play in the process, that is, when we are the senders or the receivers (Comité Paralímpico Español, 2014).

In the first case, it is essential to know how to communicate and as such we must know how to transmit the information using clear, easy and understandable language. Depending on the type of disability presented by the student-athlete, the most appropriate communication channel should be used. For example, in the case of visual impairment, it should be oral and kinesthetic. We will also have to take into account the tone of voice to be used. In other cases, such as the example students with autism spectrum disorders, we must pay attention to nonverbal communication and minimize jargon, which can be very confusing (Grenier, 2014).

When we are receivers, it is important to know the context about the information to carry on a conversation. In other words, we must be an observer and make interpretations about what we are being told (Comité Paralímpico Español, 2014). It is also important to value the sportsman-athlete globally, to have as much information about him as possible, both in terms of his possibilities of communication and expression.

4.5. Detection of single needs

Due to the wide variety of needs that student-athletes may have, it is necessary to carry out an exhaustive assessment that provides us with as much information as possible that helps us to identify them and put into perspective their biological, cognitive and psychosocial development (Comité Paralímpico Español, 2014).

In addition to the characteristics of his disability and its implications for his academic and sports career, it is also necessary to obtain information about the context, such as family characteristics, specific support programs that he receives (or not) and conditions of sports and academic involvement.

On the other hand, the design of dual career programs should meet individual athletes' needs taking into account their age, sport specialisation, career stage and financial status, with the athletes themselves taking increasing responsibility as they progress through their careers (European Commission, 2012).

According to EU Guidelines on Dual Career, educational and sports authorities should encourage stakeholders in sport and institutes of higher education to develop and implement dual career pathways, including the content of the curriculum and the use of facilities and supporting services (European Commission, 2012).

In global terms, we defend those institutional forms (academic and sports) and organization of identification and responses to individual special needs should be created. Mechanisms must exist to constantly detect needs in terms of learning, socialization, health (medical and psychological) and well-being, finances and family. The tutor should promote skills that provide student-athletes with the ability to identify their needs as well as ways to help in their resolution.

4.6. Quiz

1. What is the meaning of the biopsychosocial model?

- A. To emphasize the biological aspects of the person.
- B. To emphasize the psychological aspects of the person.
- C. To emphasize the social aspects of the person.

D. To emphasize the balance and relation between all the aspects of the person.

2. Which are the multilevel domains of learning?

- A. Cognitive, encompassing intellectual learning.
- B. Affective, encompassing the manner of dealing with things emotionally.

C. Psychomotor, encompassing the skills of performing motor tasks.

D. All of the above.

3. What are the theoretical principles to consider when it comes to mentoring?

A. Principle of integration, principle of personalization, principle of proactivity.

B. Principle of inclusion and principle of individualization.

C. Principle of autonomy and principle of individualization.

D. Principle of humanization and principle of autonomy.

4. Communication should emphasize:

A. The content of the message.

B. The form of the message.

C. Its suitability for the capabilities of the recipient and ensuring its intelligibility.

D. None of the previous.

5. In which areas it is necessary to detect individual needs?

A. Learning, socialization, health and well-being, finances, and family.

B. Medical and psychological.

C. Social and academic.

D. Medical and sports.

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MODULE 5

Environmental inclusion. Creation of suitable environments and procedural adaptations on the campuses. Identification and removal of the physical barriers.

Aura Bota

Monica Stanescu

Valeria Balan

Universitatea Națională de Educație Fizică și Sport, Bucharest, Romania.

Corresponding author: Aura Bota.

Email: aurabota@ymail.com

5 STRUCTURE OF MODULE 5	
MODULE TITLE AND NUMBER	<ul style="list-style-type: none"> Module 5: Environmental inclusion. Creation of suitable environments and procedural adaptations on the campuses. Identification and removal of physical barriers.
MODULE DESCRIPTION	<ul style="list-style-type: none"> In this module participants will be introduced to the concepts of environmental inclusion, physical barriers to overcome in universities and sport settings, as well as adapted sport equipment for practitioners with disabilities.
LEARNING ACTIVITIES	<ul style="list-style-type: none"> The learning activities comprise studying presentation content, video content, completion of related tasks, paper reviewing and the completion of quizzes.
INTENDED LEARNING OUTCOMES	<ul style="list-style-type: none"> Define and use correctly all the key terms. Describe the different types of physical barriers that affect student athletes with disabilities. Identify and apply different internal procedures for achieving environmental inclusion. Describe accessibility principles. Have specific knowledge about adapted sport equipment for facilitating sport practice.
TRAINING SOURCES and TOOLS	<ul style="list-style-type: none"> Reading (x1). Task (x1). Quiz (x1) Additional readings.
ASSESSMENT and EVALUATION	<ul style="list-style-type: none"> Completion of 3/5 multiple choice test.
MODULE DURATION	<ul style="list-style-type: none"> 60-90 minutes.
EDUCATIONAL METHODS and TECHNIQUES	<ul style="list-style-type: none"> Going through the presentations. Reading of related papers and specific legislation. Video. Fulfilling the tasks related to the presentations.
ADDITIONAL RESOURCES	<ul style="list-style-type: none"> Research articles – weblinks.

MODULE 5: Environmental inclusion. Creation of suitable environments and procedural adaptations on the campuses. Identification and removal of the physical barriers

5.1. Module introduction

This module provides an overview on environmental inclusion and the main procedures to achieve it. In order to implement these procedures within university campuses, we explain how physical environment (university- and sport-related) can create barriers that put persons with disabilities at disadvantage when accessing products or services on the premises. By presenting the principles in achieving accessibility, we also provide examples on how architectural, and facilities' features provide a friendly environment for all the students. Finally, an inclusive university should provide internal regulations regarding the accessibility of the student athletes with disabilities in all venues and circumstances.

The intended learning outcomes of this module are as follows:

- To define and use correctly all the key terms.
- To describe the different types of physical barriers that affect student athletes with disabilities.
- To identify and apply different internal procedures for achieving environmental inclusion.
- To describe accessibility principles.
- To have specific knowledge about adapted sport equipment for facilitating sport practice.

In contemporary society, diversity plays an important role, either we are talking about race, gender, ethnicity or level of abilities. A diverse environment enriches personal development, by creating the context for accepting and raising awareness of other persons who are special, in a certain way. Smashing previous stereotypes is especially significant in educational settings, including sport activities.

Worldwide, educational staff have focused in the last years on revising instructional strategies, learning styles, sport training methodologies, communication means, etc., to be more inclusive and open to the needs of disabled persons. However, in order for any curriculum change and instructional strategy to be effective, first, the recipients of these educational programmes have to have access on the premises (schools, universities, sport clubs, state institutions, cultural institutions, etc.) and to adapted facilities, this being a real challenge for persons with limited abilities.

5.2. Conceptual frame for environmental inclusion

Besides systemic, attitudinal, information and communication or technological barriers, physical and architectural ones often act like block roads for an easy access in different places, for the persons with physical or sensory disabilities.

What is environmental inclusion?

Public health literature acknowledges that people enjoy normal lives if they live in environments that facilitate them the access to educational, cultural, sport, economic, and social activities. Going one step further, the bio-psychosocial model of disability recognizes that the way in which certain environmental aspects are experienced by individuals makes them either facilitators or barriers. Environmental factors are coded from the perspective of the individual whose situation is being analysed. For example, kerb cuts without textured paving may be coded as a facilitator for a wheelchair user but as a barrier for a blind person.

Environmental inclusion entails creating facilities, infrastructure, technology, equipment, which accommodate the diverse needs of the individuals, regardless of age, disability, gender, ethnicity, religion, culture or background. Thus, environment facilitates “dignified, equal and intuitive use by everyone. An inclusive environment does not physically or socially separate, discriminate or isolate. It readily accommodates and welcomes diverse user needs”.

“There is a combination of barriers encountered – architectural, informational and attitudinal-oriented and all these translates into a vicious circle because for example, if a wheelchair user cannot reach a place because of a staircase, curb, etc., or if he cannot use a toilet, then he won’t be able to normally function in that area, so he will remain isolated, you won’t even see him, get to know him, you won’t understand his needs or what you can do to help him. In this way, nothing will ever change in terms of accessibility so we will continue to be divided in 2

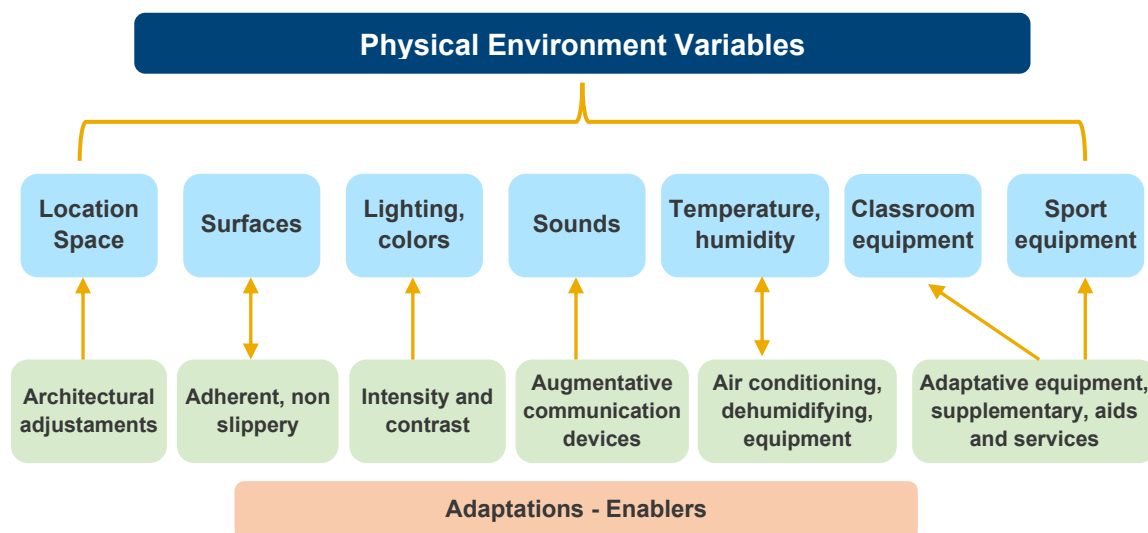
groups according to the preconceptions: *US and THEM*. *US*, people we identify with, and *THEM*, who are “different” and thus we do not relate to. What all of us should do is to close this gap between the groups. Personally, I don’t like the term “special needs” as I believe that all of us have the same needs, except some of us fulfil them differently so it is important to create the conditions/context for this to happen. So, in order to break this circle and change the paradigm it is essential to interact with the disabled” (Erika, wheelchair user, Romanian participant in the Focus group).

A welcoming environmental inclusion leads to the special population feeling that they belong everywhere, learning and performing to the best of their abilities, due to necessary tools and accommodations that communities should provide on a regular basis.

In this respect, **physical environment** of the universities and sport venues can create barriers that put persons with disabilities at disadvantage when accessing products or services on the premises. Addressing this topic, authors introduced the term disablement which emphasizes “the potentially disabling impact of environmental barriers for persons with impairments”. This process occurs in the “space” between individuals’ capabilities, the tasks to fulfil, and the environment they live in. Further, evidence shows that when physical features fully accommodate impairment, this may no longer be experienced as disability.

We present in Figure 12 the interaction between physical variables and adaptations/enablers which allow the environmental inclusion.

Figure 12
Interaction between physical variables and adaptations/enablers



Note. This figure shows the variables found in a physical environment and theirs respective adaptations.

5.3. Definition of a physical feature

In this module a physical feature represents an environmental, architectural or equipment - related element which provides functionality to buildings and locations in relation to their purposes.

A physical feature:

- is determined by the design or construction of the building (stairways, doors, gates, toilets, washing facilities, lighting, ventilation, etc.).
- is part of the entrance or exit to the university or sport club premises (kerbs, pathways, ramps, etc.).
- can be fittings, fixtures, furniture, equipment, or materials.
- is any other physical element that can facilitate/hinder accessibility.

What is a physical barrier?

For a person who has a physical, mental, or sensory disability, a barrier is anything that interacts with that disability in a way that may hinder the person's full and effective participation in society on an equal basis. So, the physical **barrier** is an interaction between an individual and the environment, which serves as a constraint/limitation experienced in a certain context. On the contrary, an **enabler** represents an interaction with the environment which facilitates an educational or sport goal achievement.

Authors like Cook et al. (2020), identified certain barriers, physical and social that occur in most activities, including sport practice. Most of these factors were also mentioned in the Paralimits questionnaire completed by student athletes with disabilities. The most frequent responses regarding the physical barriers encountered were: remote distance from university or sport venues, insufficient materials, inadequate facilities, lack of information, high costs for using sport facilities, limited accessibility or insufficient transportation. The problems they encountered are somehow similar, regardless their age, type of disability or country. Therefore, the identified contextual/environmental negative factors/barriers are to be reduced while increasing facilitators for this group of population.

When talking about barriers, one has to consider the UN definition of the disability which underlines that this condition is not generated only by the impairment of an individual but also by the way he/she interacts with the environment and the

barriers they have to overcome. It is precisely this relationship that causes a person to experience the “disabled” status within society, in a personal way, different from another. Figure 13 illustrates this interaction.

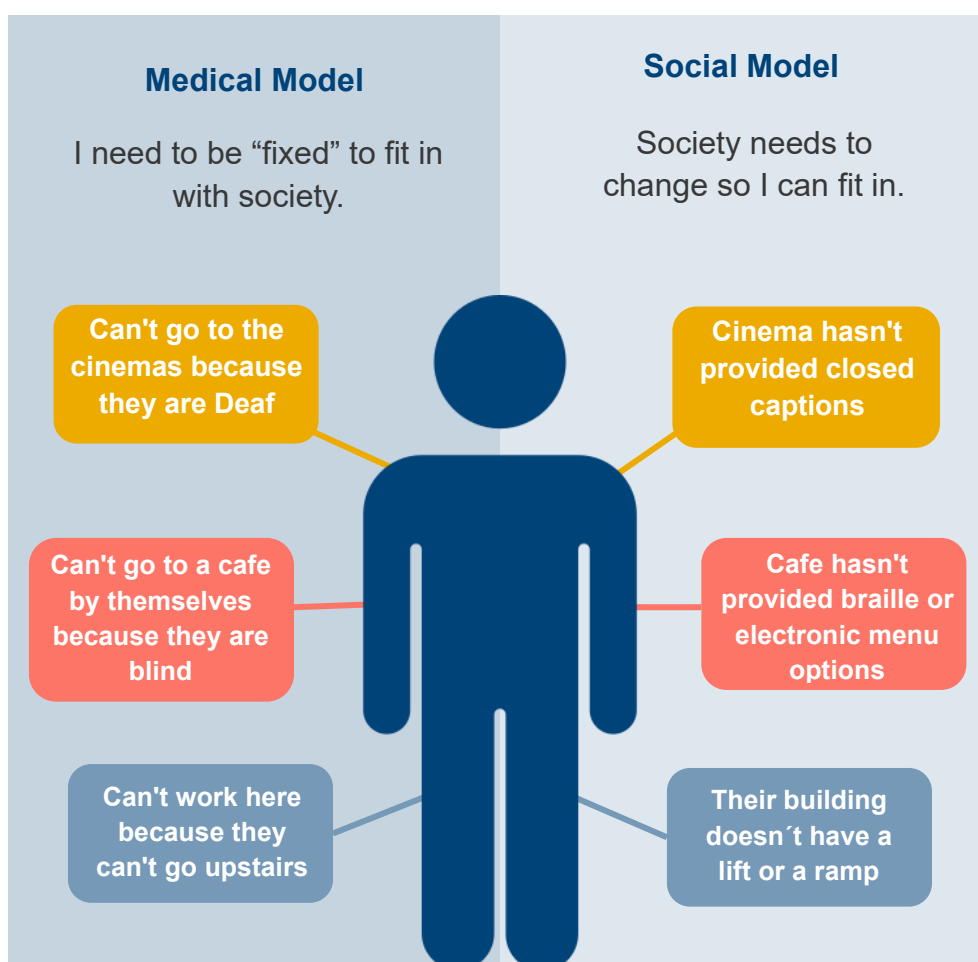
Figure 13
Interaction factors within disability.



Note. This figure shows the result of the interaction between impairment and barrier, that causes a person to experience the “disability” in different ways.

Figure 14 shows the differences between the medical model and the social model.

Figure 14
Medical versus social model of disability



Note. This figure shows the differences between a medical model and a social model.

In this context, we exemplify some physical disability barriers, as follows:

- Steps without ramps, elevators, or lifts.
- Lack of automatic or push-button doors.
- Low lighting or weak colour contrast.
- Narrow sidewalks, doorways, or aisles.
- High shelves.
- Tables without knee and toe clearance.
- No accessible line areas, waiting areas, or service counters.

5.4. Specific legislation. Principles to provide accessibility

The main outcome of an inclusive environment is the accessibility to all the people to various settings, like professional, educational, cultural, leisure or sports-related.

Different central or local authorities have enforced legal provisions regarding the accessibility, as a way to express the will to promote equality and dignity for all citizens, including the 87 million persons in EU, living with some form of impairment.

The Treaty on the Functioning of the European Union (TFEU) and the Charter of Fundamental Rights of the European Union provide the fundamental principles “to combat all forms of discrimination, establishing equality as a cornerstone of EU policies”.

The Union of Equality: Strategy for the Rights of Persons with Disabilities (2021-2030) stands as a referential for the years to come, for the National policies, acknowledging that “persons with disabilities have the right to have good conditions in the workplace, to live independently, to equal opportunities, to participate fully in the life of their community. All have a right to a life without barriers. And it is our obligation, as a community, to ensure their full participation in society, on an equal basis with others” (von der Leyen, 2021).

In areas like health, education and culture, the Member States hold the main competence, while EU has a supportive role. Therefore, they have to design their

national disability policies according to their obligations to implement the UNCRPD and the applicable EU rules.

The second chapter of this strategy addresses “accessibility, as an enabler of rights, autonomy and equality”.

Common European accessibility standards will help remove barriers for persons with disabilities and others (e.g. the elderly), as they will include:

- Accessibility to the built environment.
- ICT accessibility.
- “Design for all” standards.

In 2022 the Commission will launch Accessible EU, a European resource to increase coherence in accessibility policies and facilitate access to relevant knowledge.

Chapter 5 of the same strategy stresses Equal Access and non-discrimination topic. Persons with disabilities have the right to access, among others, education, culture, recreation, leisure and sport. An Inclusive and accessible education ensures the foundations for combating poverty and living an accomplished life in fully inclusive societies. Persons with disabilities have the right to participate in all educational levels and forms, on an equal basis with others. Educational systems at all levels should comply with the UN Convention on the Rights of Persons with Disabilities.

In a general approach, adaptation is mandatory for allowing persons with limited abilities to be the recipient of the accessibility. Seen as an umbrella process, it encompasses related services small changes-accommodations, large changes-modifications, supplementary resources or aids (Sherrill, 2004).

Related services are required to facilitate special education for children and youth, while the other three support their inclusion in regular settings.

In a nutshell, “adaptation is an art and science of assessing, prioritizing and managing variables to facilitate the changes needed to achieve educational or/and sport outcomes” (Sherrill, 2004).

Adaptation requires analysing the strengths and weaknesses of the individual and consequently, identifying the variables that can act like barriers or enablers, in a certain context.

Thus, preventing and removing barriers at all ages will improve employment, accommodation, the built environment including facilities, buildings, structures and premises, public transportation and transportation infrastructure, services and information.

Some principles in achieving accessibility were settled by specialists:

- access means barrier-free access to places, events and other functions that are generally available in the community;
- universal design means that access should be provided in a manner that does not establish or perpetuate differences based on a person's disability;
- equality relates to barrier-free access to those things that will give them equality of opportunity and outcome;
- systemic responsibility - the responsibility to prevent and remove barriers rests with the person or organization that is responsible for establishing or perpetuating the barrier.

From a technical standpoint, specialists introduce and apply accessibility standards in view to impose a certain level of quality in addressing these issues. Therefore, accessibility standards:

- prescribe the persons or organizations that are subject to the standard;
- set out measures, policies, practices or other requirements for identifying and removing barriers, and preventing barriers from being established;
- require the persons or organizations that are subject to the standard to implement those measures, policies, practices or other requirements within the time periods specified in the standard.

Improved accessibility through an inclusive environment benefits everyone, disabled and able-bodied, as well. For example, during the Covid-19 pandemic, using automatic doors and not touching the door handles helped reducing viral transmission for all the people, not just the disabled.

Meeting accessibility standards in all circumstances will no longer limit career choices of the disabled persons, including enrolling students in higher education or increasing the number of athletes with impairments in sport clubs.

5.5. Access to Physical Facilities within the universities

Physical facilities play a key role in the learning process of any institution. These facilities are the channels through which the learning process occurs. Several activities take place within these spaces, namely, learners receive instructions, they interact with their colleagues and faculty staff as well as non-teaching personnel, examinations are conducted, and learners are able to have mobility around the institution as well as gain access to research materials. Accessing these facilities, hence, becomes crucial for any learner. In order to meet the legal requirements, the university must ensure that all facilities are not only within reach, but that all learners can access them with relative ease. (Abuya & Githinji, 2021).

“We are committed not to sweep things under, for example, to display a symbol/logo for Person with disability at the entrance of a bathroom which is totally inaccessible...We have to wake up and accept that we have to provide accessibility for all. Yes, accessibility costs a lot!!! Four years ago, we equipped our university headquarters and 2 other buildings with tactile rugs/carpet, as a guiding system for the visually impaired students. Additionally, we bought a wheelchair stair lift for a building that cannot support a classical elevator and a handrail stair lift. All these were highly expensive, but it was mandatory to provide these facilities for an inclusive academic environment. As I say to my students, if a wheelchair user enters a restroom/toilet and he/she cannot perform a pirouette, then that toilet is not accessible!” (Marian, academic researcher with visual impairment, Romanian participant in the Focus group).

These facilities address the learning spaces, administrative buildings, but also sports facilities.

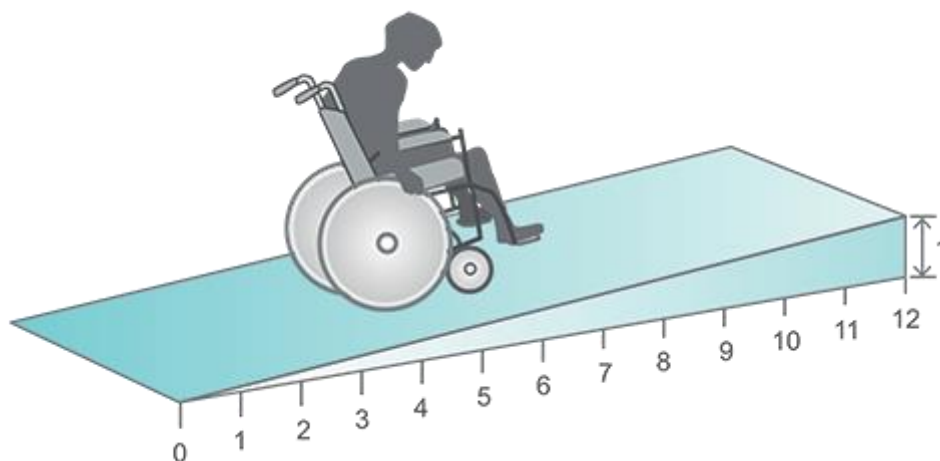
- **Offices, Classrooms and Hostels**

The social model of disability advocates for removal of barriers such as staircases—all buildings must be accessible. All “administrative offices” should be “conveniently accessible” to all students, no matter their level of abilities. Most offices, however, are located in the upper floors of the university buildings. One of the disabled students explained his plight in the following words:

“I cannot access the offices of the Dean of my school. It’s on 1st floor and there are no ramps or lifts. I have to send other students”. “This state of affairs, in many ways, makes them dependable on others for tasks they would otherwise have done themselves if proper adjustments to the physical environment had been made”.

Some research pointed out that some of the university buildings are quite old and at the time, compared to new facilities, were designed without taking into consideration the special needs. Most of the hostels have stairs, so consideration should be allocated to converting one side of the stairs to ramps (Figure 15).

Figure 15
Ramp slope with specific requirements (not steeper than 1 in 12)



Note. This figure shows the specific requirements for a ramp slope taking in consideration the special needs. In the example we see the level of the steeper going from 0 to 12.

Restrooms also need adaptive equipment. This includes side rails, extended and elevated toilet seats, changing tables, etc. Having meals require modified utensils, and cutlery like non-skid plates. For students with special needs who have to stand for a certain number of hours, special standers should be available, for providing back and leg support. Adapted tables allow students to participate in classroom activities in a standing position.

• Library Access

This type of access means that athlete students have to gain entry into the library and retrieve the records held there. The long distance between the library and

the classes, the pathways having staircases which are sometimes uneven are clear obstacles that prevent students from documenting their study themes.

Corridors and hallways should be provided with tactile rugs/carpets so that the students with visual impairments should have fewer difficulties in space orientation. A single university in Romania is in the process of providing a digital map for all the university buildings, accessible also for the students with special needs.

- **Sport facilities access**

A good example of regulation in the area of sport facilities accessibility is Sport England's Design guidance note, which provides standards regarding the good design in sport logistics, following best practices and support well designed facilities to gain clients and visibility.

We highlight in the following some examples of how to ensure accessibility, according to the above mentioned guidelines.

Arriving at the facility implies car parking areas, accessible car parking spaces, setting-down points and main entrance to the facility via a safe route. Signposting the bays should ease the orientation and save time for sport practice.

Kerbs must have dropped sections so that the wheelchair users may cross without difficulty. Audible barrier controls must have alternative provision for persons with hearing loss. A setting-down point must be provided very close to the entrance. Sport England provides detailed guidance on the access routes to and around buildings and also landmarks along routes to help orientation. The pedestrian and traffic routes should be clearly distinguishable through use of texture and colour. All surfaces should be slip-resistant in all weather conditions.

The signage system has to be properly located, clear, simple and non-reflective.

Ramps, steps and handrails are to be designed in a precise technical approach, with specific detailed regulations.

Provisions regarding the main entrance, external doors, entrance lobby, public telephone, or assistance dog areas are also included in the Guidance notes previously mentioned.

“For example, we organize courses for the students at the Architecture university because they don't have the clues, the information related to my needs to access a certain place.....for example, a meeting, an interview for which I am totally

competent but from which I am separated by a couple of stairs...” (Erika, wheelchair user, Romanian participant in the Focus group).

5.6. Adaptive equipment

Generally speaking, Adaptive Equipment assists persons with disabilities accomplishing the activities of daily living (eating, typing, walking, reading, driving, etc.), the education endeavours and sport practice for athletes.

Specialists classify this adaptive equipment in the following subcategories:

- **Orthotics:** Range of equipment used for supporting limbs or joints at multiple levels: lower extremity, upper extremity, torso, head and neck.
- **Prosthetics:** Range of equipment used for limb amputations, in the upper and lower extremities.
- **Seating/Walking:** Range of equipment which helps sitting comfortably and walking without help. These include seating systems, cushions, braces, crutches, canes and walkers.
- **Wheeled Mobility:** Range of equipment designed to help people mobility and move freely. Products include manual and powered wheelchairs, wheelchair accessories, carts, transporters, etc.
- **Daily Living Aids:** Range of equipment that help in personal hygiene in sport practice, like bathing, dispenser aids, health care, toileting, and moving.
- **Vision:** Range of equipment designed for visually disabled like educational aids, computers, information storage, orientation, mobility, recreation, sensors, tools, time, typing, travel, and Braille system.
- **Deaf:** Range of equipment used by persons with hearing disabilities which facilitates amplification, hearing aids, sign language, speech training, signal switches, etc.
- **Education:** Range of equipment designed for students with disabilities, which facilitates access to educational material and instructions within universities

- **Communication:** Range of equipment including aids for persons with speech, writing, or communication related disabilities, like mouthsticks, typing, and writing, signal systems, etc.
- **Computers:** Range of equipment including adaptations of IT facilities (software, hardware, and computer accessories), in order to be used more effectively by persons with disabilities.
- **Recreation:** Range of equipment including products for disabled person's leisure and entertainment. These include sports facilities and equipment.
- **Sport adaptive equipment** – detailed in 5.5.2
- **Safety:** Range of equipment which serves the safety and security in various settings. These may include security systems, lights, electric cords, alarms, and locks.

Adaptive Equipment in Classrooms

During classes, students with limited abilities need adaptive equipment in order to ease the learning process. Unlike regular students, the students with disabilities have to be provided enough opportunities to be equivalent to their able-bodied peers. In this aim each university must assess the needs of its limited abilities students and provide the necessary equipment.

Small modifications like preferential seating, voice recorders, keyboards to take notes, easels to adjust angle of paper, special writing supplies like pencil grips have to be provided, while for students with **speech impairments**, augmentative communication devices will be available. Personalized wheelchairs or positioning furniture, back support or straps for maintaining position are to be taken into consideration.

Adaptive sport equipment

Adapted sport relates to modified regular sport, in order to meet the unique needs of individuals with disabilities. In order to play sport, adaptive equipment is required. Fortunately, nowadays, this type of equipment is so diverse, that dozens of sports have become accessible for all types of disabilities. Therefore, all competitive or leisure time athletes can choose the sport they wish to perform depending solely on their interests or capabilities.

Every coach or teacher of adapted physical education and sport needs to incorporate in his/her activity, teaching/coaching approaches applied in a personalized manner, taking into account all the physical opportunities, including the adaptive sport equipment that enables athletes to succeed in sport activity.

The adapted sport equipment results from the creativity of teachers/coaches, but also of technicians who identify a lot of possible changes to be done in order to increase the accessibility of different sports for persons with limited abilities.

The main equipment changes which increase the possibility to be used are related to size, weight, shape, colour, surface (smooth, rough, etc.), length, texture, sound, the way to be used (stationary or moving), the contrasts with the background area, etc.

Depending on the integration continuum for sport participation, athletes can attend from regular (for example, an athlete with intellectual disabilities who performs 100m dash), to adapted sport practice (for example, an athlete with amputation who performs wheelchair basketball).

Sport equipment for motor and physical disabilities or amputations

If in the past, individuals with Cerebral Palsy, stroke or other neurological and physical conditions were restricted from physical activity or sports, at present they are encouraged to embrace these activities due to their positive effects on motor, cognitive or behavioural areas.

Moreover, athletes with physical impairments can compete in the Paralympics competition, in various sport events, due to cutting edge technology incorporated in the sport equipment. The level classification system within the Paralympics for athletes with physical disabilities takes into account the International Classification of Functioning, Disability and Health (ICF), which acknowledges individual functioning as a dynamic interaction between the athlete health conditions, **environmental factors**, and personal factors. Thus, according to the ICF, athletes with physical limitations can participate in sport events, if environmental variables act like enablers and if the athlete's functional and sport skills are checked. In this approach the focus is on athlete's abilities and participation capabilities. Thus, activities and participation are considered more relevant than the disease or bodily functions, so persons with different health states are allowed for equal participation in sport, in a unitary system. For example, an athlete with a mid-cervical tetraplegia who scores low points for the

assessment of bodily functions may participate in sailing competition alone or in crew, if adaptive equipment is provided.

Sport practice for athletes with severe physical disabilities is highly restricted unless wheelchairs are available. In this respect most of the sports can accommodate wheelchair players, through some adaptations from regular sports. Wheelchair sports are also part of the Paralympic Games conducted at the same period and country as the Olympic Games.

Technically, there are many types of wheelchair sports - racing, basketball, tennis, table tennis, badminton, bowling, hockey, football, and baseball. Some of them are played in manual wheelchairs, while others in electric wheelchairs. Normally sports that are required electric wheelchairs have the term electric before the name like Electric Wheelchair Baseball.

Sport wheelchairs, either manual or electric are not the same as regular ones. They are designed to have higher speeds and easier to be maneuvered. "The wheels have angles for added stability and the frame is stronger to sustain rough activities during sports".

For athletes with severe disabilities, special equipment – crutches, braces, bolsters for upper body support, orthotic devices are allowed in certain sports, facilitating different postures, typical for each sport or sport event.

We present in Table 1 the environmental adaptations required in sitting volleyball and wheelchair basketball (for athletes with amputations, spinal cord injuries, cerebral palsy, brain injuries and stroke).

Table 1
Environmental adaptations

Category	Adaptations
Equipment	Lightweight wheelchair with cutting edge design features (in basketball).
Environment	Smaller court (10m x 6m), net set at 1,15m for men and 1.05m, for women, smaller court than in regular conditions (volleyball).

Note. This table shows the adaptations required in sitting volleyball and wheelchair basketball divided in two categories: equipment and environment.

Regarding the sport equipment for high level athletes with amputations, state of the art technologies are incorporated so that the movement efficiency, individual comfort and sport performance can enhance. Advanced prosthetic devices for athletic events are usually a curved blade shape, constructed from carbon fibre and providing a good balance of flexibility and strength to resist high-impact movements like sprinting and jumping.

Paralympic cross-country skiing includes sitting events (for wheelchair users), using a sit-ski, which has a chair supported with a suspension over a pair of skis that ride in a track; the chair has strapping to secure the skier.

In Paralympic alpine skiing, the skier uses outrigger skis, sit-skis and mono-skis, allowing balance, turn, control speed, or stop skills.

For the athletes with amputations, running blades are used to replace the calf and ankle. The J-shaped prosthetic is made of carbon fibre, a strong, lightweight material, which helps performing running steps, vertical lifts or long jumps.

Racing wheelchairs and gloves are customized to the athlete's body, providing lateral stability and speed.

We can conclude that prosthetic limbs and wheelchairs have become “productive extensions of the athlete body”, rendering possible spectacular sport performances, hard to imagine few decades ago.

Other equipment:

- Handcycles or bicycles designed to be steered and pedalled using only the rider's arms (also called recumbent bicycles).
- Gym equipment and exercise machines designed for users in a wheelchair.

Sport equipment for visually impaired

When coaching visually impaired athletes, the most common approach is to add sound devices so that they have continuous auditory feedback, to guide their sport activity. Some examples:

- scoring a goal has to be audible, so bells should be tied on the net goal;
- playground balls should be also audible by cutting the ball, inserting bells and then resealing it with a tire patch;

- sound sources from a distance help the runner maintain the direction.

We present in Table 2 the environmental adaptations required in softball activities.

Table 2
Environmental adaptations

Category	Adaptations
Equipment	Auditory ball, beep ball, large plastic bats, bright ball, buzzers on bases, large bases
Environment	Shorter distance between bases, less bases, smaller field, increase in number of players, batting cages

Note. This table shows the adaptations required in softball activities divided in two categories: equipment and environment.

Enhancing visual cues during the training session helps instruction, if athletes have some residual vision. Colour, contrast and lighting are essential in order to highlight these cues. For example, using collared tape on the edges of the gymnastics apparatus, or mats, field markers or balls in bright colours facilitate visual information processing and thus self-efficacy in performing sport skill tasks. For example, in swimming, in the backstroke event, “flags are hung over the pool, very low, so that they brush the swimmer’s arms, to signal the pool’s edge”.

Sport equipment for hearing loss

Most of the deaf individuals can perform physical exercise with no restrictions and adaptive equipment, as hearing loss is not a physical disability, but a sensory one. The fitness levels of the deaf and hard of hearing athletes, compared with the standardized norms are very close to those of the non-disabled persons.

Under these circumstances, the only potential difficulty is the communication among deaf or hard of hearing persons and others, in the context of a training session. Optimizing communication between athlete and coach or peers often requires the use of an interpreter whose sign language will provide the instructional cues regarding the technical skills he has to perform.

For athletes with residual hearing, the coach may use a portable microphone which amplifies his voice into the athlete's hearing aid. Maximizing the visual cues during the lesson includes, in both integrated and segregated settings entails:

- cue cards providing written explanations and figures;
- athletes are given copies of the lesson content, prior or at the beginning of the training session;
- bright lighting when working indoor activities

5.7. Removing barriers created by physical features.

Procedures' guidelines

We present in the following some examples of removing barriers created by physical features to help persons with a disability access university:

- providing a wider car parking space reserved for use by badge holders;
- replacing steps with temporary or permanent ramps at the entrance of the premises;
- widening doorways for a better passing through;
- fitting hand-rails to allow students use small steps;
- removing obstacles and moving furniture for clear passageway for students with limited mobility or visual disability;
- providing signs easier to read, or illustrative pictures.

“Unfortunately, there are lots of situations wherein law is not observed or the measures are taken reactively (due to a complaint), and not proactively. It would be wonderful for a disabled person to choose the university he/she wants to attend according to the personal options and interests and not according to the accessibility facilities” (Erika, wheelchair user, Romanian participant in the Focus group).

An inclusive university should provide internal regulations regarding the accessibility of the student athletes with disabilities in all venues and facilities. At the same time, specific responsibilities for staff working in the administrative office

should be settled, in order to apply these regulations and maximize enablers for the recipients.

A friendly, inclusive academic environment should assume the role of promoting sports for persons with limited abilities and break the barrier towards a society where everyone is equally important and can perform at the best of his abilities.

5.8. Conclusions

In contemporary society, diversity plays an important role, either we are talking about race, gender, ethnicity or level of abilities. A diverse environment enriches personal development, by creating the context for accepting and raising awareness of other persons who are special, in a certain way.

Besides systemic, attitudinal, information and communication or technological barriers, physical and architectural ones often act like block roads for an easy access in different places, for the persons with physical or sensory disabilities.

Environmental inclusion entails creating facilities, infrastructure, technology, equipment, which accommodate the diverse needs of the individuals, regardless of age, disability, gender, ethnicity, religion, culture or background.

For a person who has a physical, mental, or sensory disability, a barrier is anything that interacts with that disability in a way that may hinder the person's full and effective participation in society on an equal basis. So, the physical **barrier** is an interaction between an individual and the environment, which serves as a constraint/limitation experienced in a certain context. On the contrary, an **enabler** represents an interaction with the environment which facilitates an educational or sport goal achievement.

The physical environment of the universities and sport venues can create barriers that put persons with disabilities at disadvantage when accessing products or services on the premises.

In contrast with the **medical model**, the **social model** of disability entails the need of an advanced society to change so that any person with limited abilities can fit in.

In a general approach, adaptation is mandatory for allowing persons with limited abilities to be the recipient of the accessibility. Seen as an umbrella process, it encompasses small changes in related services (accommodations), large changes (modifications), supplementary resources or aids.

Within the universities, accessible facilities address the learning spaces, administrative buildings, but also sports facilities. Meeting accessibility standards in all circumstances will no longer limit career choices of the disabled persons, including enrolling students in higher education or increasing the number of athletes with impairments in sport clubs. A good example of regulation in the area of sport facilities accessibility is Sport England's Design guidance note, which provides standards regarding the good design in sport logistics, following best practices and support well designed facilities.

Adapted sport relates to modified regular sport, in order to meet the unique needs of individuals with disabilities. In order to play sport, adaptive equipment is required. Fortunately, nowadays, this type of equipment is so diverse, that dozens of sports have become accessible for all types of disabilities. Therefore, all competitive or leisure time athletes can choose the sport they wish to perform depending solely on their interests or capabilities.

5.9. Assessment

Insert the following words into the spaces in the sentences below:

facilities, infrastructure, technology, equipment, age, disability, gender, ethnicity, religion, environmental, architectural or equipment

1. Environmental inclusion entails creating
.....,,
which accommodate the diverse needs of the individuals, regardless of
.....,,,
....., culture or background.
2. A physical feature represents an
..... **or**, related
element which provides functionality to buildings and locations in relation
to their purposes.

Tick the correct answer:

Physical disability barriers are represented by:

X	Steps without ramps, elevators, or lifts
X	Narrow sidewalks, doorways, or aisles
	Segregated classes
X	No accessible line areas, waiting areas, or service counters
	Adapted curriculum
X	High shelves

Find the correct pair-answers about the adaptive equipment:

1	Orthotics	A	Range of equipment designed to help people mobility and move freely
2	Seating/Walking	B	Range of equipment used for limb amputations, in the upper and lower extremities
3	Prosthetics	C	Range of equipment used for supporting limbs or joints at multiple levels: lower extremity, upper extremity, torso, head and neck
4	Wheeled Mobility	D	Range of equipment which helps sitting comfortably and walking without help
5	Daily Living Aids	E	Range of equipment designed for visually disabled
6	Vision	F	Range of equipment that help in personal hygiene in sport practice

Correct answers: 1-C; 2-D; 3-B; 4-A; 5-F; 6-E.

Find the correct pair-answers about the accessibility principles:

1	Access means	A	Responsibility to prevent and remove barriers rests with the person or organization that is responsible for establishing or perpetuating the barrier
2	Universal design means	B	Barrier-free access to places, events and other functions
3	Equality	C	Barrier-free access to those things that will give them equality of opportunity and outcome
4	Systemic responsibility	D	Access should be provided in a manner that does not establish or perpetuate differences based on a person's disability

Correct answers: 1-B; 2-D; 3-C; 4-A.

Tick the correct answer:

Adaptive Equipment in Classrooms is represented by:

X	Preferential seating
X	Augmentative communication devices
	Doors
X	Voice recorders
	Parking spaces
X	Keyboards to take notes

Tick the sports disciplines which use the wheelchair

X	Dance
	Volley
X	Basketball
X	Tennis
X	Athletics
	Hockey

Identify True/False answers

Removing barriers created by physical features means:

T	Providing a wider car parking space reserved for use by badge holders
F	Organizing inclusive activities
F	Adapting the learning tasks
T	Widening doorways for a better passing through
T	Replacing steps with temporary or permanent ramps at the entrance of the premises
F	Adapting the teaching methodologies
T	Providing signs easier to read, or illustrative pictures

5.10. References

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MODULE 6

Social inclusion. Good practices for the integration of the student athletes with a disability in the University community

Emanuele Isidori

Alessandra Fazio

Angela Manganini

Lorenzo Cioni

Università degli Studi di Roma "Foro italico", Roma, Italy.

Corresponding author: Emanuele Isidori.

Email: emanuele.isidori@uniroma4.it

6	STRUCTURE OF MODULE 6
MODULE TITLE AND NUMBER	<ul style="list-style-type: none"> Module 6: Social inclusion. Good practices for the integration of the student-athletes with a disability in the University community.
MODULE DESCRIPTION	<ul style="list-style-type: none"> The module aims to provide the mentor with some useful strategies to promote the social integration of the student-athlete with disabilities in the university community. Some good practices will be described for this purpose and a guide will be illustrated to which the mentor can refer to analyse case and context (from now context in this module refers to the university setting).
LEARNING ACTIVITIES	<ul style="list-style-type: none"> This module consists of 7 compulsory learning activities to complete.
INTENDED LEARNING OUTCOMES	<ul style="list-style-type: none"> Understand the importance of facilitating the student with disabilities to successfully be integrated into the university community. Map the activities through which students interact with each other and with members of the university community (context analysis). Identify which activities are most suitable for the student-athlete with disabilities to integrate into the university community, based on his/her specific needs (case analysis) Being aware of good practices to facilitate social integration in the university community.
TRAINING SOURCES and TOOLS	<ul style="list-style-type: none"> The course is based on the scientific literature provided in the references.
ASSESSMENT and EVALUATION	<ul style="list-style-type: none"> Completion of 5 multiple-choice questions.
MODULE DURATION	<ul style="list-style-type: none"> 75 minutes.
EDUCATIONAL METHODS and TECHNIQUES	<ul style="list-style-type: none"> The course is based on the integration of: 1) active teaching activities (text production) to stimulate personal reflection on the topics dealt with; and, 2) passive teaching activities, aimed at conveying the mentor's knowledge of the scientific literature relevant to the topic.
ADDITIONAL RESOURCES	<ul style="list-style-type: none"> N/A.

MODULE 6: Social inclusion. Good practices for the integration of the disabled athlete in the University community

6.1. Presentation and introduction

In this module of the course, we will discuss the social integration of the student-athlete with disabilities into the university community. In particular, after clarifying why it is important for the disabled student-athlete to integrate within the university community and what are the possible barriers that may hinder this, some strategies and good practices will be suggested to facilitate the social integration process of the student-athlete with disabilities.

Specifically, at the end of this module, the mentor should be able to:



Key concepts:

- Social integration contributes to the well-being and academic success of the student-athlete with a disability, as well as to the enhancement of the university community as a whole.
- The possible barriers that may hinder the student-athlete from socially integrating into the university community are many and may be related to both the dual career path and the disability condition.
- Potentially effective actions in promoting social integration are many and include welcoming activities, the use of inclusive teaching strategies, the use of technology and involvement in university sports activities.
- Social integration in the university community requires cooperation between different stakeholders with whom the mentor has to interact.
- To map the activities in which the student-athlete with disabilities can participate to become integrated into the university community, it is crucial firstly to analyse the context and the case.

The term social integration refers to the experience of interaction between the student-athlete with disabilities and other students, lecturers, technical and administrative staff, disability office staff, the mentor himself and all other members of the university community.

The social aspects of university life are now recognised as a fundamental dimension and "should be central to higher education strategies at system and institutional level" (Rome Ministerial Communiqué, 2020, p. 4).

The mentor represents the nodal point of the social network and should ensure that the student-athlete with disabilities interacts with other members of the university community in a positive way as much as possible, for at least three fundamental reasons.

Firstly, participation in the social life of the university community contributes to the student's well-being and mental health (University Mental Health Charter, 2022). From this perspective, facilitating and promoting the social integration of the student-athlete with disabilities into the university community could be a protective factor and is in line with current dual career policies, which are increasingly geared towards protecting the health and well-being of the student-athlete in an integral manner (European Commission, 2012).

Secondly, being well integrated into the university community increases the possibility of success in studies, since relationships with peers and other community members provide an important source of practical and emotional assistance and support, make available information that allows the student to effectively navigate within a new context, and act as a buffer in stressful situations the student may encounter on his or her path. On the contrary, when the student is less socially integrated into the university community, he or she is more likely to drop out. As Broadfoot states, "It is the human side of higher education that comes first - finding friends, feeling confident and above all, feeling a part of your course of study and the institution - that is the necessary starting point for academic success" (2012, p. 1).

Third, the student-athlete with disabilities, with his or her unique set of experiences, can make a valuable contribution benefitting the entire university community. Indeed, when students experience contact with diversity, they show greater progress in personal and educational growth, are more involved in activities involving collaboration, and are more satisfied with their university career (Kuh et al., 2006). The integration of student-athletes with disabilities therefore provides an opportunity to benefit everyone.

However, student-athletes with disabilities may encounter difficulties integrating into the university community due to both the dual career pathway and the disability status. The biggest obstacle related to dual careers is probably the lack of time and energy to participate in common activities with other members of the university community. Obstacles related to disability status are many and include the inaccessibility of spaces, the lack of specific support needed to take part in social activities (e.g. the lack of communication assistants for persons with deafness) and the negative attitudes of other members of the university community. Studies indicate in this regard that students with disabilities participate less in university extra-curricular activities and perceive themselves to be much less integrated than their peers without disabilities (Hauschildt et al., 2022; Papasotiriou & Windle, 2012; Sachs & Schreuer, 2011).

6.2. Analysis of the case and the context

The practices that could be particularly effective in facilitating social integration (described in the next section) are welcoming activities, the use of inclusive teaching strategies and participation in study groups, the use of digital technologies, and involvement in university sports activities.

These practices call into question the overall organisation of the university context and require the action of various stakeholders (the disability office, the lecturers of the various courses and other students, the athlete's sports federation, etc.) with whom the mentor is called upon to cooperate, as it is well outlined in other modules of this course.

However, it must be considered that each university is organised on the basis of its own autonomous policymaking and available resources (financial, structural and personnel). Activities to facilitate social integration may therefore vary not only from country to country, but also between different university institutions within the same country.

Furthermore, each student-athlete with a disability might have specific needs that are related to his/her sport career and disability condition that should be properly considered.

For these reasons, it is not possible to rely on pre-established solutions that are valid for all situations, and it is necessary to start from an accurate analysis of the context in which one operates and of the specific needs of the student-athlete with disabilities, evaluating resources and critical issues on both levels.

To this end, it might be useful to consider the following questions (Table 3 and 4):

Table 3
Analysis of context

Analysis of context
<ul style="list-style-type: none"> • Does the university organise orientation, welcoming and/or awareness-raising activities? • Are classes organised in such a way as to encourage active participation and interaction among students? • Through what channels can students get in touch with teachers and technical and administrative staff? • What extra-curricular activities are organised by the university? • Does the university organise sports activities? Which ones? • Do students use groups on social networks or instant messaging systems to interact and exchange information? Which ones? • Do students organise themselves into study groups? • Where do students meet informally and what activities do they engage in?

Note. This table shows the questions that should be taken into consideration when analyzing the context of a university when looking for practices that facilitates social integration.

Table 4
Analysis of the case

Analysis of the case
<ul style="list-style-type: none"> • Does the student already know other people within the university context with whom he/she can interact? • Is the student aware of the importance of integrating into the university community? • What are his or her sport-related commitments? Do they overlap with the activities that have been identified through the context analysis?

- Depending on the type of disability of the student, which curricular and extracurricular activities identified through the context analysis are accessible with the intervention of the disability office, if any?
- Can the student participate in university sports activities?
- What are the student's interests and preferences? In which extra-curricular activities would the student like to participate?
- Is the student familiar with digital platforms? Does he/she have a profile on one or more social networks?

Note. This table shows the questions that should be taken into consideration when analyzing the case of a student when looking for practices that facilitates social integration.

6.3. Good Practices

Welcome/Orientation Activities

The transition phase from secondary school to university can be a particularly challenging time for all students who are facing not only different teaching methods and modalities, but also a new social world.

Furthermore, for the student-athlete with a disability, the transition from secondary school to university overlaps with another significant transition concerning athletic development, characterised at this stage by the delicate arrival at the 'mastery' phase in which athletes reach their highest level of athletic proficiency (Wylleman et al., 2004).

To facilitate the phase of integration into the university community, some universities organise events lasting one or more days before the beginning of the academic year during which all students have the chance to know the environment, share extra-curricular activities and meet their fellow students, teaching, technical and administrative staff.

Welcome and orientation activities could be particularly effective in promoting the social integration of new freshmen and should also be highly recommended to student-athletes with disabilities. Examples of welcome and orientation activities are described by Andrews et al. (2012) and Makalani Myrtveit et al. (2017).

It is important to understand that the mentor is an integral part of the university community and the first and most strategic link to the social network of the student-athlete with a disability within the university. It is therefore crucial that the mentor welcomes the student from the very beginning, makes him/her feel welcome and facilitates his/her integration into the wider social network.

To this end, it could be useful to contact the student-athlete with disability by e-mail before the beginning of the lessons in order to open up a dedicated channel of communication with him/her, provide him/her with the initial information needed to guide him/her in the new context, and arrange an initial cognitive meeting.

In particular, the first meeting should be useful to:

- Get to know the student-athlete with disabilities in a more in-depth manner and carry out the case analysis.
- Help him/her become aware of the importance of integrating into the university community, highlighting the possible benefits he/she could gain for the academic pathway.
- Present him/her with all the teaching and non-teaching social activities, including informal ones, in which he/she could participate, based on the context analysis.
- Help him select the most suitable activities on the basis of his specific needs through which he can integrate into the academic community.
- Arrange with him/her the times, methods and possible support needed to participate in the selected activities.

Inclusive teaching strategies

It is well known that teaching strategies based on active participation and peer collaboration (typical examples are peer tutoring and cooperative learning) not only have a positive effect on academic achievement, but also stimulate the development of social skills and are effective in fostering a sense of belonging and integration (Braxton, 2001; Dudley et al., 1997; Ishaq & Bass, 2019; Ku et al., 2006). Therefore, such strategies should be favoured whenever possible.

As teaching strategies, these types of activities depend on the choices of the lecturers responsible for individual courses. However, study activities based on peer collaboration can take place spontaneously outside the teaching timetable. Irrespective of the instructional choices of individual instructors, the mentor may

therefore consider facilitating the inclusion of the student-athlete with disabilities in already formed study groups or organising study groups from scratch involving the student-athlete with disabilities together with fellow students. Coordination with the disability office may definitely help.

Use of technology

One of the factors that may hinder the student-athlete with disabilities from integrating into the university community is the lack of time to participate in common activities with other members of the community and the overlap between sport and academic commitments.

However, thanks to the development of digital platforms, social networks, and instant messaging systems, all interactions between the student and other members of the community can now take place remotely, with significant advantages in terms of reduced space and time that benefit the student-athlete with disabilities.

There are many tools available. The most common include Facebook, Instagram, Twitter, Skype and WhatsApp, as well as the various digital platforms used by universities to manage the formal flow of information with students (e.g., Moodle, Docebo, Blackboard).

Considering that in principle remote interactions should not fully replace face-to-face interactions, technologies could be useful for several purposes:

- To enable the mentor to interact with the student-athlete with a disability.
- To facilitate the participation of the student-athlete with disabilities in peer tutoring experiences in either synchronous or asynchronous study groups.
- For informal interactions with other students. Social networks could be particularly effective in the range of 16 to 30 years of age. Evidence on the effectiveness of using social networks as tools to promote social integration of students is reported by Madge et al., (2009). On the use of technologies as tools to facilitate the mentoring of student-athletes see Migliorati et al. (2018) and Sánchez-Pato et al. (2017).

University sports activities

Sport activities represent a kind of “social glue” and help to counteract isolation and promote students' sense of belonging to the university community (Brunton, Mayne, 2020).

University sports activities could be particularly effective in facilitating the social integration of the student-athlete with disabilities, also because they undoubtedly represent the extra-curricular activity closest to his or her personal interests and suitable for highlighting his or her specific skills. Whenever circumstances enable it, the mentor should encourage him/her to participate.

The prerequisite for the sport activity to effectively act as a social bond is that the student-athlete with a disability participates together with other members of the university community, both with and without disabilities. There are many strategies to be used to make ordinary sport activities accessible to persons with disabilities, which, however, require the support and intervention of a sport science expert (ISD, 2022). The mentor should assess the presence of experts among the various stakeholders in the support network of the student-athlete with disabilities, in particular, among the members of the sport federation the student-athlete belongs to.

Awareness activities

In some universities, activities are organised to make students and teaching, technical and administrative staff more aware of the difficulties that students with disabilities may encounter in the university environment. Such activities as workshops or online courses (especially for teaching and administrative staff) and simulation courses, are usually run by experts in the field and/or by students with disabilities themselves. During these activities, students are made to experience first-hand the obstacles that students with disabilities encounter when participating in university activities. These activities are generally organised by the disability office and are very helpful to reduce negative attitudes that may hinder the relationship between the student with disabilities and other members of the academic community.

If activities of this kind are organised at the university, the mentor, in cooperation with the disability office, will consider involving actively the student-athlete with disabilities so that he/she can make a positive contribution, report on his/her experience and be known by the university community.

Examples of such awareness-raising activities are described by Bialka et al. (2017) and Wynants and Dennis (2017).

6.4. Case of study

This part of the module will summarise the outcome of a case study and context analysis carried out with a student-athlete with disabilities and the interventions that were recommended to help him/her integrate into the academic community.

—● Context analysis

1) **Does the university organise orientation, welcoming and/or awareness-raising activities?**

The surveyed university organises regular yearly open days to inform new freshmen about study programmes, teaching methods and organisation, services, and facilities. The open days include both in-person and online meetings. During the academic year, several events are organised to raise students' and lecturers' awareness on issues related to disability and dual career. For example, last academic year, an academic expert led a seminar open to all university lecturers on teaching strategies to promote the successful completion of studies for students with special educational needs and a seminar open to all was organised with the participation of dual career and student-athlete experts.

Recently, a selection was also launched at the surveyed university to award 2 grants to students enrolled in master's degree courses to carry out tutoring activities for students in the Dual Career programme. The students who have been awarded these grants are in charge of supporting the student-athlete/technician/competition judge/referee in their training, as mediators in their relationship with teachers and the related offices, as well as gathering educational information (study materials, programmes, exam procedures, possible activation of ad hoc exam dates, team meetings, etc.) and assisting the student-athlete in administrative issues (deadlines, exam reservations, forms, etc.).

2) Are classes organised in such a way as to encourage active participation and interaction among students?

Regarding the organisation of teaching, a heterogeneous situation emerges in the surveyed university. In some cases, lectures are predominantly face-to-face with little or no opportunity for students to interact with the lecturer and with each other during the lectures. In other cases, classes are instead based on active teaching strategies (group work, cooperative learning, etc.) that facilitate opportunities for interaction during lectures.

3) Through what channels can students get in touch with teachers and technical and administrative staff?

Both lecturers and technical and administrative staff provide an institutional email to students. It is also possible to meet with them on fixed days and times at the university's premises.

Students with disabilities, on the other hand, can contact the specialised tutoring service by email or dedicated line to arrange an appointment.

4) What extra-curricular activities are organised by the university?

In the university analysed, there is a wide range of sports activities that can be practised by all members of the academic community (students, lecturers and technical-administrative staff). For example, activities that can be practised include five-a-side and eleven-a-side football, rugby, swimming and water polo, padel, basketball, volleyball and athletics. However, there are currently no specific sports activities on offer for people with disabilities.

5) Do students use groups on social networks or instant messaging systems to interact and exchange information? Which ones?

The university uses the main social networks (Facebook, Instagram, and Twitter) to disseminate events, news and audiovisual materials. There are also groups created and managed independently by students on Facebook and WhatsApp through which they interact and exchange information about courses, exams and other aspects of university life.

6) Do students organise themselves into study groups?

Some students meet in groups before or after classes to study together. Meetings take place at the university premises, in the university study areas and online.

—● Case study

1) Does the student already know other people within the university context with whom he/she can interact?

No, the student did not know anyone before enrolling to the university.

2) Is the student aware of the importance of integrating into the university community?

During the first interview, the student was aware of the importance of integrating into the academic community and was eager to build relationships with his peers and get to know the lecturers of the various courses.

3) What are his or her sport-related commitments? Do they overlap with the activities that have been identified through the context analysis?

The student-athlete trains four days a week between Monday and Friday for about two hours, to which another hour and a half must be added each day for commuting. He is also involved in regional and national competitions at weekends. National competitions only take place once a month but take up the whole weekend (Friday to Sunday).

Sports commitments prevent the student from attending some of the lessons of his course of study, particularly afternoon classes, as well as regularly participating in university sports activities with his classmates.

4) Depending on the type of disability of the student, which curricular and extracurricular activities identified through the context analysis are accessible with the intervention of the disability office, if any?

There are no limitations due to architectural barriers. In fact, the university is equipped with lifts and access ramps that allow wheelchair users to access all areas of the university.

5) *What are the student's interests and preferences? In which extra-curricular activities would the student like to participate?*

The student particularly likes five-a-side football but has little time for extracurricular activities. At the university he/she attends, there is the possibility of playing conventional 5-a-side football, but there is a lack of dedicated offers for people with disabilities.

6) *Is the student familiar with digital platforms? Does he/she have a profile on one or more social networks?*

The student is used to using social networks, has a Facebook profile, and regularly uses WhatsApp.

—● Suggested interventions

According to the information gathered, the following measures were adopted in this case to facilitate the student's social integration into the academic community:

- 1)** The student was invited to participate in open days organised by the university.
- 2)** The student was actively involved in awareness-raising initiatives organised by the university on issues concerning both dual career and disability.
- 3)** The student was encouraged to attend lectures as extensively as possible. The lecturers of the various courses were informed of the student-athlete's needs and urged to take the necessary steps so that the student-athlete could attend lectures remotely in the case that he/she was physically unable to travel to the university.

- 4) The student-athlete was supported by one of the students awarded a scholarship to carry out tutoring activities within the framework of dual-career programmes. The student tutor's various tasks will also include facilitating the student-athlete's social integration into the academic community by acting as an mediator between the student and the various members of the community, professors, technical and administrative staff, the specialised disability tutoring service and fellow students.
- 5) The student was notified of the social network pages used by the university to disseminate news and information on events held. In addition, the student was included in WhatsApp and Facebook groups used by coursemates to exchange information on exams and study material.
- 6) The student-athlete was suggested to join the study group that meets in the morning, on days when classes are scheduled, at the university premises. The group members were informed in advance by the student mentor and urged to set up an online connection to allow the student-athlete to participate remotely in cases where he/she is unable to travel to the university.
- 7) Appointments with the mentor were scheduled at 3-month intervals to monitor the effectiveness of the proposed interventions.

6.5. Quiz

1. The integration of student-athletes with disabilities into the university community.
 - A. It is important for his/her well-being.
 - B. It is important for his/her academic achievement.
 - C. It benefits the entire university community.
 - D. All options are true.**
2. May the student-athlete with a disability have difficulty integrating into the university community?
 - A. Generally, not.

- B. Yes, for reasons related to the dual career path.
- C. Yes, for reasons related to his/her disability.

D. Options b and c are true.

3. Facilitating the integration of the student-athlete with disabilities into the university community requires:

- A. Starting with an accurate analysis of the context.
- B. Carry out an analysis of the individual case during the first meeting.
- C. Co-operating with other stakeholders involved in the support network.

D. All options are true.

4. The aim of analysis of the context is to:

- A. Check that the student-athlete with a disability feels comfortable in the classroom.
- B. Welcome the student-athlete with disabilities in the university context.

C. Map all the activities through which students interact with each other and with the members of the university community.

- D. Identify the specific needs of the student-athlete with disabilities.

5. Which of the following activities do NOT facilitate social integration into the university community?

- A. Study groups based on peer cooperation.
- B. University Sport activities.

C. Asynchronous video lectures.

- D. Welcome and orientation activities.

6.6. References

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