

# Inclusive Physical Education and Para-Sport



Comité  
Paralímpico  
Español



TRINIDAD  
ALFONSO  
FUNDACIÓN

**Cultura del  
Esfuerzo**



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## INCLUYE-T: INCLUSIVE PHYSICAL EDUCATION AND PARA-SPORT

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# Introduction

The European Union (EU) envisages social inclusion as a process which ensures that people at risk of poverty and social exclusion have the opportunities and necessary resources to fully participate in the economic, social and cultural life of their communities, enjoying a standard of living and well-being that is considered normal in the society in which they live (the European Union, 2010; Rios et al., 2009).

Social inclusion clearly embraces education. The right to education has been understood as one of the most important rights for children with disabilities and, at the same time, the most frequently constrained (Kelly, 2002). For that reason, the Convention on the Rights of Persons with Disabilities aims to promote education systems guaranteeing the right of equal opportunity to education to all children and adolescents with some type of disability, addressing and responding to the diversity of needs of all learners by increasing participation in learning, cultures and communities, reducing exclusion within and from education (United Nations, 2006). It involves changes and modifications in content, approaches, structures and strategies with a common vision, covering all children of the appropriate age range and a conviction that it is the responsibility of the regular system to educate all children (United Nations, 2006). However, the meaning of “inclusive education” might be understood differently according to nations’ culture and education policy. Thus, inclusion is becoming diverse and complex among nations, from integrating students with disabilities within a general framework of education to creating a process that fully includes, embraces and supports diversity among all students (Escudero & Martínez, 2011).

At the national level, the international legislative base on Article 24 of the *UN Convention on the Rights of Persons with Disabilities* (2006), is embodied through various forms of best practices (Pérez-Tejero, 2013; Spanish Paralympic Committee, 2014). Furthermore, the Boletín Oficial del Estado de España (BOE, the Official State Bulletin) of April 2008 approved the mentioned article regarding participation in cultural life, recreation, leisure and sport by people with disabilities. The BOE provides some proposals to achieve this participation:

- a) To encourage and promote participation of persons with disabilities in mainstream sporting activities at all levels;
- b) To ensure that persons with disabilities have the opportunity to organize, develop and participate in disability-specific sporting and recreational activities, and to encourage the provision on an equal basis for appropriate instruction, training and resources;

- c) To ensure that persons with disabilities have access to sporting, recreational and tourism facilities;
- d) To ensure that children with disabilities have equal access with other children to participation in play, recreation, and leisure and sporting activities, including those activities in the school system;
- e) To ensure that persons with disabilities have access to services from those involved in the organization of recreational, tourism, leisure and sport activities.

In recent years, the inclusion process has led to one of the strongest changes in international educational legislation. This is due to the increased number of students with disabilities who have been able to join in mainstream school settings. The inclusion ideology is a proactive stance, different from combining students with and without disabilities in the same classroom. Inclusion is, in itself, a set of attitudes that provide a learning environment in which the support, respect and understanding of students' differences are contemplated. In addition, each and every student actively participates regardless of race, gender, motor skills or abilities.

The area of physical education (PE), or inclusive physical education (IPE), as it will be referred to in this document, usually involves many meanings and nuances. The inclusion process of people with disabilities in the area of PE implies changes and modifications of the content, approaches, structures and teaching styles, providing an environment in which all students with disabilities can share the same space, materials and activities as their peers without disabilities (Rouse, 2009). The final aim of this inclusive education is, regardless of students' age and ability, equal opportunities to practice physical activity (Kasser & Little, 2013), through greater participation and reducing exclusion within and outside the education system (Echeita & Ainscow, 2011).

Studies conducted in different countries strengthen the idea that teachers who receive specific training to work with students with disabilities present more effective reactions and more favourable attitudes than those who have received none (Obrusnikova, 2008). A proper teacher training must offer real and direct experiences throughout a period of the training process. This is important in order to implement programmes and content with an integrated policy, as well as increasing teachers' confidence and positive beliefs about inclusion (Lijuan et al., 2015). Thus, these practices greatly increase teachers' willingness to teach students with a disability, and their feeling of being more capable of facing daily issues related to the teaching process (Oh et al., 2010).



# 1. Inclusive Physical Education

Adapted physical education has the purpose of implementing and carefully designing a physical education programme that meets the specific needs that any student with a disability might ask for. This programme has the purpose of developing or improving the students' lifetime motor skills, allowing students to participate in any leisure, recreational and sports setting, as well as enhance students' physical fitness and wellness (Auster, Pyfer, & Huettig, 2001). It is also important that students develop their emotional and affective side, in addition to a good acceptance of their own body, environment and the people they interact with. Therefore, there is a need to educate students and society in order to understand that PE is an area that helps students with disabilities to develop and maintain healthy habits important for their future life.

## Do you know....

that a proper use of games and sports may increase interaction between students with and without special needs in Physical Education, developing cooperation, team working, dialogue and respect?



Some authors have addressed the inclusive process in PE (Block & Obrusnikova, 2007), as well as in other settings such as physical activity (PA) or sports (Healy, 2016; Pérez-Tejero, 2013). These studies have presented some postulates about participants who are engaged in inclusive activities, including that (i) each person is unique; (ii) each has different abilities and different physical, cognitive, emotional and social needs; (iii) everyone has the right to avail themselves of such inclusive activities; (iv) people's abilities might change as a result of the interaction of the individual, the environment and inclusive activities; (v) participants have the right to choose and take their own decisions; and (vi) everyone can benefit from others' experiences.

Thus, the benefits of inclusive practices have been widely reported to practitioners. Among them, we can highlight the following:

- (i) respect for individual differences and skills,

- (ii) a deeper understanding of one's strengths and weaknesses (Lindsay, McPherson, Aslam, McKeever, & Wright, 2013),
- (iii) a wider range of opportunities and experiences (Block, Taliaferro, Campbell, Harris, & Tipton, 2011),
- (iv) experiences in a more motivated and normalized environment (Pérez-Tejero & Ocete, 2012),
- (v) development of resources to avoid isolation from peers,
- (vi) increased feeling of acceptance and community (Suomi, Collier, & Brown, 2003), and
- (vii) increased willingness to contribute to objectives and results of the programmes or increasing individual value and self-esteem (Martin & Smith, 2002).



In this GUIDE, students' **autonomy** play a key role at different times of the **sessions**, always alternating this methodology together with activities based on **cooperative work** and in the promotion of **social relationships**. By fostering these skills from an early age, students with disabilities will be **encouraged** to develop and maintain the necessary **values** to achieve lifetime physical fitness habits.

The education policy of each country provides a body of content to work within the PE curriculum. This content varies from country to country. However, recently, there has been observed an increase in the use of Paralympic sports (here, also called "para-sports") in the curriculum as learning content. This might be because para-sports are seen as a sporting manifestation based on the effort and the development of the abilities of those who practice them. This content within PE considers both the sport activity and the game itself as an educational tool with an inexhaustible motivational quality, and a broad capacity to promote positive attitudes and values.

Playing a role in different games and sports activities implies the development of empowerment, individual initiative and personal effort to overcome any motor problem that is generated by the practices. In this sense, the offering of games and



sports activities in the curriculum proposal must be varied, reflecting the cultural manifestations of the society to which the student belongs, with didactic approaches that allow them to increase self-competence.

In the didactic proposals developed on that aspect, teachers can introduce in a playful and sporting way the sensitization towards different types of abilities. This approach will be realized from the point of view of the Paralympic values, ensuring that those values are the same ones that students experience during the sessions.

## 2. Paralympic Values

Incluye-T is launched in cooperation with the Spanish Paralympic Committee, and para-sport could be part of the Physical Education Curriculum.

The Paralympics emerged in 1960 in response to social needs for the adaptation of various sports in order to facilitate the participation of people with disabilities who could not participate in conventional sporting events.

According to the *motto* of the International Paralympic Committee (IPC, 2015), the Paralympic Movement's ultimate aspiration is "to make for a more inclusive society for people with an impairment through para-sport". The Paralympic Games are the world's number one sporting event for transforming society's attitudes towards impairment with the vision "to enable para-athletes to achieve sporting excellence and inspire and excite the world".



The Paralympic Games have served to raise social awareness about the difficulties that athletes must face during their sport preparation and competition, highlighting at the same time the most prominent early Paralympic values, as follows:

- a) **Courage:** para-athletes through their performances showcase to the world what can be achieved when testing your body to its absolute limits.
- b) **Determination:** para-athletes have a unique strength of character that combines mental toughness, physical ability and outstanding agility to produce sporting performances that regularly redefine the boundaries of possibility.
- c) **Inspiration:** as role models, para-athletes maximize their abilities, thus empowering and exciting others to participate in sport.
- d) **Equality:** through sport, para-athletes challenge stereotypes and transform attitudes, helping to increase inclusion by breaking down social barriers and discrimination towards people with an impairment.

In light of the above, we offer to educators a set of guidelines and facilities to achieve these para-sport values within the educational environment.





[alimpicos.es/https://www.para](http://alimpicos.es/https://www.para)



## 3. Inclusion in Schools

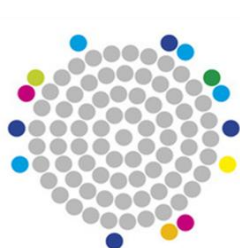
When a group of people meets, each person will present a set of specific skills and abilities. According to how individuals without disability face this situation, different approaches can be distinguished:

 **Exclusion:** Being *excluded* means not being recognized or taken into account as a result of economic, social and vital fragmentation, which results in a severe loss of fundamental rights such as education.

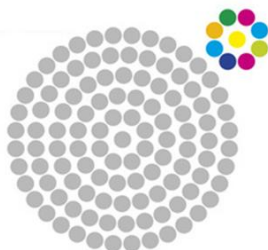
 **Separation:** This is the action and effect of segregating: to separate, to marginalize, or to remove something or someone from other situations or people. The segregation of human beings is usually motivated by social, cultural or political factors and is intrinsically linked to other elements such as racism, marginalization, classism and discrimination in general. With this guide, we want to equip teachers with a set of tools that contribute to the inclusion of students with different abilities in the classroom.

### Integration vs Inclusion.

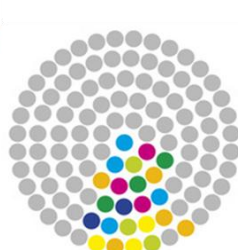
Since these last two terms can entail certain terminological confusions, we will make a comparison between them (PaPaz, 2012).



EXCLUSION



SEPARATION



INTEGRATION



INCLUSION

INTEGRATION	INCLUSION
Partial and conditional insertion.	Total and unconditional insertion.
Seeks concessions to the systems.	Requires breakdowns in systems.
Changes priority for people with disabilities.	Changes that benefit everyone and anyone.
Involves superficial transformations.	Requires profound transformations.
People with disabilities adapt to the reality of the models that already exist in society.	The society adapts to meet the needs of people with different abilities, and with this, it becomes more attentive to the needs of all.
Defends the rights of persons with disabilities.	Defends the rights of all people.
Introduces excluded groups into systems with similar purposes.	Introduces excluded groups into the systems and, at the same time, transforms those systems so that they become quality systems for all.
The tendency to treat people with disabilities as a homogeneous group.	Values the individuality of each person.
Tends to disguise limitations to increase opportunities for insertion.	Does not disguise the limitations because they are real.
The adjective <i>integrated</i> is used when it is looking for quality structures that address people with disabilities.	The adjective <i>inclusive</i> is used when quality is sought for all people, regardless of their abilities.

According to Ríos et al. (2009), there are specific social determinants that might increase the difficulty of achieving inclusion in school, such as: (i) ignorance of the general population about the needs of people with functional diversity, which can lead to situations of avoidance, lack of solidarity or lack of awareness towards people with disabilities; (ii) poor knowledge of the social profitability, constraining the provision of equal opportunities or adapted programmes to the users' needs; (iii) insufficient (or precarious) training of some professionals in physical activity and sport; (iv) preconceived ideas for the provision of specific ("segregated") programmes, which may limit progress towards an inclusive approach; (v) the attitude of family members so that – whether due to ignorance of the benefits of physical activity, an unjustified fear of sports (overprotection) or lack of time – they are not able to provide the necessary support; and (vi) poor networking and lack of institutional coordination.

Inclusion is, therefore, an essential aspect of the teaching process because it allows all students to have the same opportunities. The goals of including students with educational support needs in PE classes are (i) to understand the importance of practicing physical activity through inclusive behaviours; (ii) to understand the importance of practicing physical exercise in order to improve physical fitness, motor skills and self-esteem; (iii) to enhance positive social interaction to favour students' social relationships with their peers in regular PE classes.

It is crucial that teachers be familiar with the term "inclusion" since it is intended to encourage all students to participate in an active and effective way, adapting, if necessary, the rules or/and the material involved in the activity.



**Do yo know....**

that the key factors for an Inclusive Physical Education (IPE) are: supports (peers, professor, tutors), curriculum design, contextual factors, contact, and the attitudes by peers and teachers?

A. Following Reina (2014), inclusive practices provide different benefits to all the parties involved in the process, including the following: *Benefits for participants:*

- Respect for individual differences and abilities.
- Knowledge of strengths and weaknesses.
- Increasing the experiences and opportunities for practice and learning.
- More motivating and stimulating environments.
- Lower insulation.
- The sense of community and acceptance.
- Contribution to the programme with elements of diversity.
- Improvement of self-concept.

B. *Benefits for teachers:*

- Increasing awareness of individual differences.
- Change of professional perspective.
- Increasing intervention strategies.
- Variations of tasks and skills.
- Assessment of different capacities.

**Factors that contribute to the success of IPE programmes**  
(Sang, Younhwan &Block, 2014)

Additional Supports	Training courses, IPE guidelines, practical training.
Positive Attitudes	Early involvement in PE as prevention of negative attitudes, frequent interactions with people with disabilities, previous information provided, avoiding heavy workloads, sporting events to overcome prejudice towards disability.
Supports	Reducing class size, cooperative teaching, support of specialist assistant, adapted equipment, IPE workgroups.
Adaptations	Preliminary evaluation of the sessions, different levels of the programme, activity selection, working with a co-educator.
Peer Tutoring	Training the student, enhancing games oriented to have fun while avoiding competition, praising the peer tutor, awards, selecting activities.

## 4. Raising Awareness of Impairments

Raising or increasing disability awareness is the process by which students acquire different experiences with which they get a chance to empathize and understand peers and people with different abilities and or impairments by promoting values for inclusive physical education.

To support teachers in their work to achieve successful experiences with their students while working on raising awareness of impairments and inclusive physical education, it is important for teachers to consider and incorporate the following aspects:

- *Prior to the session:*
  - The teacher should be well informed in advance about the characteristics and impairment of the student with whom he/she will work, the degree of knowledge the students have on the topic and the materials which are necessary for performing the activities.
- *Situations that occur during the session:*
  - Disability-specific simulations (how and why it is done).
  - Performing the necessary adaptations and adjustments for each activity (material, timing, space, rules, etc.).
  - Varying the role of the person with an impairment for all (or most of) the students, so that they can experience it and therefore increase their empathy.
- *After the session:*
  - Together with the students, analyse the development of the session and discuss possible ideas or adjustments for future sessions.

### Do you know....

that the feedback provided to the whole group and the cooperative working may increase the understanding of complex concepts?

In this way, it is possible to reflect about situations that are overlooked during the practice, either because of the complexity of the task, the concentration required or because a lack of time.



## Awareness about different impairments and capabilities

The International Classification of Functioning, Disability and Health -ICF- (WHO, 2001) allowed the change of a classification which was based on deficits to a classification which is based on skills and health components. The term “functioning” refers to all the body functions, activities and participation, while “disability” can be seen more as a negative in terms of impairments, activity limitations and participation restrictions. This perspective represents a significant change in the current understanding of “disability”, shifting the focus to the health and the capabilities of the classified person (Reina, 2014).

In addition, the ICF provides the use of a standardized language and a theoretical framework for describing different states of health; its application now goes far beyond the health sector. Some models of inclusive physical activity are based on elements of the ICF, in which a number of factors determine the progressive development of inclusion: (a) personal factors (knowledge, motivation, perceived risks), (b) contextual factors (attitudes, language, professional competence, accessibility, administrative help) and (c) task- or activity-specific factors (equipment, proposed activities; Kasser & Lytle, 2013). In this manner, the success of the inclusive process lies – in its essence – in the interactions that occur between the person and the given tasks, which in turn imply an adjustment of the capabilities of the individual, student, athlete or user.

According to the International Paralympic Committee, ten different types of impairments can be identified as eligible to participate in the Paralympic Games. Eight of them encompass physical impairments, along with one for visual impairment and another for intellectual disability. In this guide, we also considered important to include the hearing impairment.



According to the World Health Organization an **impairment** is a problem in a body function (physiological functions of body systems, including psychological functions) or structure (anatomical parts of the body such as organs, limbs and their components) such as a significant deviation or loss.

The impairment may cause activity limitations such as running or jumping, so a modification of the learning context is necessary for an Inclusive Physical Education.



# ATAXIA



## What is it?

Ataxia is a neurological disorder characterized by problems with the coordination of voluntary muscle movements.

## Who can have ataxia?

Among other things, Ataxia can occur as a consequence of different diseases or focal lesions such as tumours, a stroke, multiple sclerosis or cerebral palsy (when the injury occurs in the first two years after born).

## What is limited (effects and/or symptoms)?

- Imbalance.
- Uncoordinated movements.
- Difficulties in speech (dysarthria) or swallowing liquids or solids (dysphagia).
- Inability to make repeated opposite movements, such as turning your hands up and down alternately.
- Unsteady and slow movements.
- Usually, it is also characterized by a low muscle tone or hypotonia.

## How to aware of ataxia?

Limit the free running phases during games and increase the base of support. For this, the participant (with ataxia) should carry something between their legs while walking, which cannot fall – for example, a ball.



# ATHETOSIS



## What is it?

Athetosis can vary from mild to severe motor dysfunction. Generally, it is characterized by imbalances and muscle tone disturbance that provoke involuntary movements, as well as difficulty in maintaining a symmetrical position of the body.

## Who can have athetosis?

Athetosis may be caused by malformations, brain injuries (occurring during the fetal stage due to an infection or lack of oxygen or blood supply), problems during birth, injuries or secondary postnatal accidents – including meningitis, encephalitis, traffic accidents, drowning and cerebral palsy. When the injury occurs in children younger than 2 years, the term of cerebral palsy (CP) is used; although it may also be due to a brain injury (e.g., a head trauma or a stroke).

## What is limited (effects and/or symptoms)?

It is characterized by involuntary contractions of the limbs; consequently, the muscle tone fluctuates and goes from hypertonia to hypotonia. Abrupt and misdirected movements can alternate with stiff postures, which is also known as dystonia. Therefore, people who suffer from athetosis are unable to maintain stable postures.

The involvement of language can be affected in a large range and be quite variable, in such a way that speech is generally uncoordinated and lacks rhythm and pace.

## How to aware of athetosis?

The students should wear bracelets and anklets with bells that should not stop ringing at any time.





## HYPERTONIA

### **What is it?**

Hypertonia is defined as an abnormally increased muscle tone while the person is attempting to maintain a relaxed state of muscle activity. It may be the result of an injury, a disease or another health condition in which the central nervous system is damaged.

### **Who can have hypertonia?**

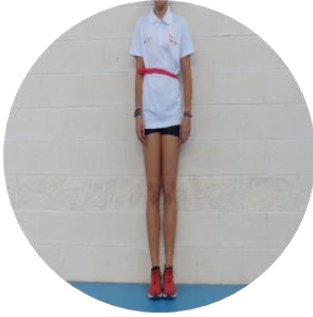
Hypertonia may be caused by prenatal situations like CP, but also due to postnatal causes such as a stroke, multiple sclerosis or acquired brain damage.

### **What is limited (effects and/or symptoms)?**

- It is characterized by limits to the ability to stretch the muscles (passive muscle movements).
- The range of motion is affected, impacting the process of learning new motor skills.
- Personal autonomy will be limited on the basis of severity of hypertonia.
- Hypertonia causes deterioration and/or muscle weakness due to lack of use.

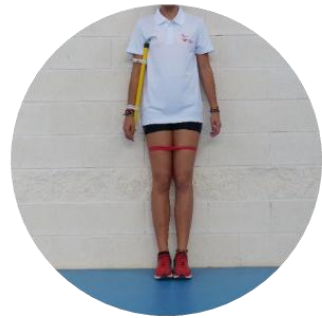
### **How to aware of hypertonia?**

Depending on the severity of the impairment, there are different ways to raise awareness: (a) moderate activity limitation: using elastic bands to limit certain body movements; or (b) severe activity limitation: placing rigid materials on the joint axes to cause a constant extension or flexion of the joints. Hemiparesis can also be simulated by carrying a small ball under the arm.



Upper Extremity Monoplegia:  
mild (left) and severe (right)

Lower Extremity  
Monoplegia



Diplegia

Hemiplegia

Triplegia



## IMPAIRED RANGE OF MOVEMENT (ROM)

### What is it?

The range of motion in one or more joints is reduced or may only occur within a certain range/degree of movement which might not be only painful but also limiting.

### Who can have an impaired ROM?

The factors that influence mobility might be due to anatomical or biomechanical (articulation type, elasticity, muscle strength), biochemical (muscular metabolism), neurophysiological factors (muscle tone, ability to relax the muscles) or other factors (age, sex, physics, genetics). For example, joints with arthrosis are characterized by cartilage deterioration in which the bones rub against each other, producing a reduction of the range of movement as well as feelings of pain.

### What is limited (effects and/or symptoms)?

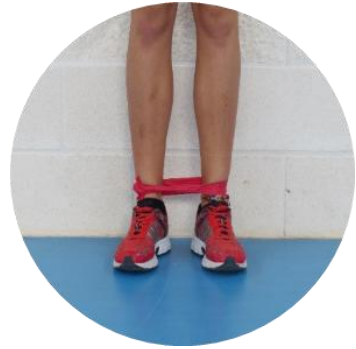
- The active range of motion, which is the amount of movement at a given joint when the person moves the body part voluntarily.
- The passive range of motion, when no active movement comes from the person voluntarily, and it is achieved by applying external forces.

### How to aware of impaired ROM?

Using ropes or scrunchies on some joints to prevent their full mobility or achieve the maximum range of motion.



Impairing pinzer / grasping



## SHORT STATURE



### What is it?

The upright position when standing is abnormally reduced due to smaller dimensions of the upper and the lower extremities as well as the upper part of the body.

### Who can have short stature?

Short stature can be a symptom of many conditions or medical problems, including bone disorders, diseases, genetic disorders, infections of the foetus before birth or malnutrition. One example of this is achondroplasia, which can be caused by either genetic disorders or spontaneous mutations.

### What is limited (effects and/or symptoms)?

The presence of changes in the alignment of the lower limbs can determine certain functional difficulties by reducing the support base and worsening balance, therefore causing a gait with higher energy expenditure.

### How to aware of short stature?

Have students play various games on their knees only (for this, kneepads are highly recommended).





## LEG LENGTH DIFFERENCE

### What is it?

We use the term dissymmetry of the lower extremities when the bone system of one of the extremities is shorter or has a length less than the other extremity, which can be due to a congenital deficiency or trauma.

### Who can have leg length difference?

People who suffer from diseases that can cause uneven growth of the extremities, for example, congenital malformations, syndromes, sequels of traumas, some childhood diseases or even muscle problems that can produce asymmetric shortening.

### What is limited (effects and/or symptoms)?

If the dissymmetry occurs in the lower extremities, it results in a pelvic imbalance and scoliosis (or scoliotic attitude), which is a compensatory curvature of the spine.

### How to aware of leg length difference?

When performing a session in the classroom in which we want to raise awareness towards leg length difference, we can simulate it by adding a sole to a shoe, using stilts or walking with one foot on tiptoe. Another simple variation is the use of only a single shoe or the use of both shoes with different sole thicknesses.





## LIMB DEFICIENCY

### What is it?

We speak about limb deficiency when there is a total or partial absence of certain bones or joints. This can be due to a trauma (e.g. traumatic amputation), a disease (e.g. bone cancer) or a congenital disorder (e.g. dysmelia).

### Who can have limb deficiency?

People who are born with a congenital pathology, people who have suffered a traumatic injury or those who have had a disease that led to an amputation.

### What is limited (effects and/or symptoms)?

The autonomy of people with limb deficiency varies depending on the affected limb and the level of amputation. Lower limb prostheses can be used to restore functional movements; upper limb prostheses have a more aesthetic than functional quality, although nowadays technological advances help to improve the prostheses' practical use in activities of daily living.

### How to aware of limb deficiency?

- *Upper extremities*: tying the arms together with ropes; this way we are preventing the use of certain limbs (uni- or bilateral). In addition, the student can simulate the absence of his/her hand by holding a ball, preventing its use during the activities.
- *Lower extremities*: playing sports on the ground – either sitting or kneeling – or holding a foot to the back (i.e. tied with ropes), with the help of crutches or canes. It is also possible to use a wheelchair in this simulation.

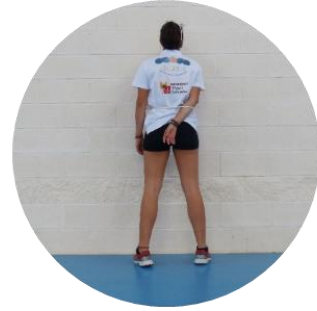




Unilateral below  
wrist



Unilateral below  
elbow



Unilateral below  
shoulder



Lower Limbs



## IMPAIRED MUSCLE POWER

### What is it?

Lack of force produced by the contraction of a muscle or muscle group (e.g. paraplegia, tetraplegia, muscular dystrophy, polio, spina bifida, among others).

### Who can have impaired muscle power?

Anyone can have lack of strength who has suffered from illnesses or injuries that affected the body either directly (i.e. a shoulder injury for a paralysis of the brachial plexus) or indirectly (i.e. an injury to the spinal cord which affects the transmission of motor impulses to the legs).

### What is limited (effects and/or symptoms)?

The power, agility and reaction time of certain stimuli are limited.

### How to aware of impaired muscle power?

We can let the students participate in physical activities while carrying a ballast weight on their limbs. In the event of highly affected lower limbs, the activities can be implemented in wheelchairs or directly on the ground. The students can also use medicine/exercise balls or ballasted equipment to increase resistance when throwing.

Supporting elements such as canes, crutches or walkers can also be used for the simulations.





## HEARING IMPAIRMENT

### **What is it?**

Hearing loss is a specific condition that affects a great deal of a person's life. The ear in itself is a very complex organ serving important functions such as processing sound signals and sending them to the brain and at the same time hosting the vestibular system. Hearing loss can range from mild to profound, which is commonly called deafness.

### **Who can have a hearing impairment?**

Hearing impairment, a problem with hearing or deafness can have different origins/causes:

- Genetic: It can be passed on from parents to children.
- Congenital: Refers to the characteristics with which an individual is born that are acquired during pregnancy.
- Acquired: It can be caused by an accident or by a disease after birth.

Other causes are, for example, industrial noise or hearing loss associated with ageing.

### **What is limited (effects and/or symptoms)?**

For people who have a hearing impairment, it is difficult to capture all the information that occurs around them; therefore, they have to invest a lot of energy in observing and interpreting stimuli. Additionally, people with a hearing impairment tend to exhibit balance disorders due to damage to their vestibular system.

### **How to aware of hearing impairment?**

Students can be sensitized by using earplugs in order to isolate them (wholly or partially) from their peers. In this way, we encourage them to communicate using body language and lip-reading as well as promote the use of visual stimuli.

This can also be accomplished by using headphones (let the students listen to music that prevents their hearing other sounds or verbal language).



## VISUAL IMPAIRMENT

### **What is it?**

Visual impairment is any restriction to or lack of vision. There are different degrees of vision loss, ranging from a partial loss to a total loss (or blindness). Visual impairment can come from either an impairment of the ocular structure or the optic nerves or optical channels; it can also be due to problems in the visual cortex of the brain.

This impairment can either come as a result of some pathology or be inherited.

### **Who can have a visual impairment?**

Visual impairment can include people who have suffered diseases such as cataracts, glaucoma, macular degeneration, corneal opacity or trauma; children who had complications in pregnancy or during childbirth; and elderly who suffer from deterioration of vision with age.

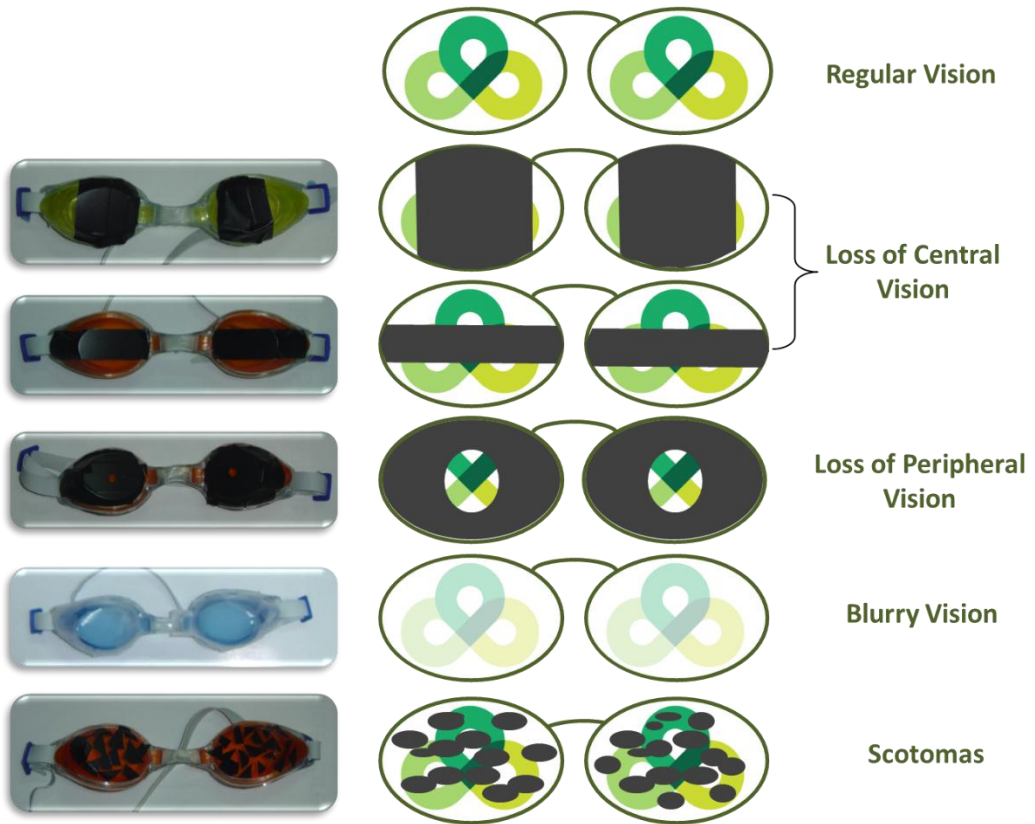
### **What is limited (effects and/or symptoms)?**

A person with good vision typically integrates the information he/she gets from other senses and uses it to form a visual image of experiences, while a person who is blind cannot create this picture.

There are three basic influences that are directly related to visual impairment or blindness: restriction in development, a different (and later) understanding of the world, and a lower possibility of experiences and relationships with the environment.

### **How to aware of visual impairment?**

Students can use eyewear (glasses, goggles, patches) that is designed to mimic and simulate different types of visual impairment, or blindfolds, which help to simulate total blindness.





## INTELLECTUAL DISABILITY

### **What is it?**

Intellectual disability is characterized by significant limitations in both intellectual functioning and adaptive behaviour, which covers one's many everyday practical and/or social skills.

For a diagnosis, three criteria have to be met: (1) an IQ score (as measured by certain intelligence tests) of 70 or less indicates a limitation in intellectual functioning; (2) limitations in daily living skills, which must also be measured by certain tests; and (3) the limitations must occur before the age of 18.

### **Who can have an intellectual disability?**

There are four categories of factors that may occur before, during or after the birth of a child: genetic disorders, chromosomal disorders, biological and organic causes (occurring before, during or after birth), or environmental causes (e.g. nutritional deficiencies of the mother during pregnancy, drug or alcohol abuse).

### **What is limited (effects and/or symptoms)?**

People with intellectual disabilities often require a longer time than others to learn, understand and communicate. This implies a limitation in the skills which the person learns to function in daily life and which allows them to respond to different situations, places or contexts. Depending on a more or less enabling environment, the disability can be expressed differently.

### **How to aware of intellectual disability?**

This is far more complex to simulate than the previous conditions as the simulation of the disability is not so visual and direct. In order to simulate this impairment, teachers can ask the students to work with difficult tasks involving complex and fast decision-making or information processing (e.g. speaking in another language, using incoherent terms, reading texts in which some words are missing or deleted), thus provoking high cognitive dissonance in the students.

# 5. Inclusion Strategies

## 5.1. GENERAL CRITERIA FOR ADAPTATIONS

An important issue for organizing and planning inclusive sessions is to identify the main physical education goals. There is no a single or established work model, but each centre, department and teacher should set his/her inclusive methodology according to the cultural and policy characteristics of his/her environment.

On numerous occasions, when designing an activity in an inclusive environment, teachers have the uncertainty of *what*, *how*, *when* and *where* they should make the pertinent adjustments. Therefore, it is necessary to know what the feasible elements are to be modified in the activity or in the action:

### Participants

This is the number of people acting at once to achieve a common goal, getting a benefit for oneself or the rest of the team/group. Depending on the students' characteristics, we will increase or reduce the number of groupmembers.

### Movement patterns

In each game or activity, participants will develop a set of motor skills, such as jumping, moving, and throw or handling objects. In most cases, these skills are combined and integrated into the game or sport, so the level of complexity varies according to the difficulty and simultaneity of the actions required.

### Organization and tactics

We refer to the organization and arrangement of participants in space (pairs, trios, small or large groups), and in which lies both the goal of the game as its complexity. To achieve the ultimate goal, different tactics can be carried out in which participants will be arranged in the most beneficial way to facilitate the task. For example, if there is a student with movement limitations, he/she and his/her team can be favoured for scoring (e.g. shorter distances or restricted areas), always taking into account the participants' security (e.g. keeping a minimum distance).

### Rules

To create an inclusive environment in the classroom, it is important to focus on the non-significant curricular adaptation content. In this way, the objectives are not modified so as not to affect the rest of the group. In the same way, teachers need to consider that those pertinent curricular adaptations cannot result in discrimination of students.

We may vary the number of players, wins, scales of the tests and scoring system, trying to avoid, as far as possible, any rules that imply the elimination of students in the games.

### **Time**

The duration of the activity will influence both the type of skills to practice with students and the performance thereof. In shorter periods of time, the students work more explosively, so that those with limited mobility or orientation probably find it more complicated and need to work harder to achieve the same goal as their peers. Instead, it is recommended to incorporate shorter activity times alternating with short breaks in which to recover while the teacher can make changes in the game and give feedback about its development, among other things.

### **Material**

When choosing the material, there are two options that will help with the participation of all students: creating new materials or adapting materials which are already available at school (see materials section). For example, if a student with cerebral palsy or brain damage has difficulty in grasping a hockey stick, a tape on the handle can be used to make it a suitable size, being grasped and easily handled by the student. In most cases, with such simple actions like this, students' participation can greatly facilitate, having a positive effect on motivation.

Once the various aspects that influence the organization of the game or sport are known, we can make a number of suggestions for adaptations in each of these elements, depending on the type of ability to develop in the game.



### Ideas to consider when using the tables of content adaptations

- It is important to ensure as much as possible that all group members have equal opportunity to participate in the proposed task. We must be aware of the challenges to overcome with each of the students having different abilities.
- It is very beneficial to students with different capabilities to help create their own adaptations, as they often are the best sources of ideas for this.
- Changes do not have to be permanent; they will be modified as long as the student develops new skills or reaches higher levels of self-confidence.
- It may not be necessary to change the rules and/or materials of a game just to include a student. It may be only necessary to make a small individual adaptation.
- You must be aware that it is not always possible to include all students in the same activity. However, sometimes individualized work can be of great help and value to a student with a disability. It is essential to prioritize safety in the classroom at all times to create a trusted environment.
- It is important to maintain the integrity of the game because if we make major modifications it may lose its meaning or purpose for which we originally chose it.

a) Depending on the main impairment of the student

	Intellectual Disability (ID)	Hearing Impairment (HI)	Visual Impairment (VI)
<b>Material</b>	<ul style="list-style-type: none"> <li>Changes in the colour, size, weight, textures</li> </ul>	<ul style="list-style-type: none"> <li>Visually striking and attractive</li> </ul>	<ul style="list-style-type: none"> <li>Audio material, with bright colour and larger size.</li> <li>Use material either hanging or in support.</li> </ul>
<b>Group organization</b>	<ul style="list-style-type: none"> <li>Small groups</li> </ul>	<ul style="list-style-type: none"> <li>Entire group or small groups</li> </ul>	<ul style="list-style-type: none"> <li>Small groups</li> </ul>
<b>Supports</b>	<ul style="list-style-type: none"> <li>It is interesting that these students have some assigned classmates (peer tutoring) who can intermittently or continuously assist them depending on the need and the task to complete.</li> </ul>		
<b>Space (Working area)</b>	<ul style="list-style-type: none"> <li>Prioritize security, remove obstacles in the work area.</li> </ul>		
	<ul style="list-style-type: none"> <li>Modify the workspace. For example: play closer to the net in volleyball, increase the size of the goal posts in handball, lower the height of basketball hoops.</li> </ul>	<ul style="list-style-type: none"> <li>Avoid areas with excessive noise.</li> <li>Provide good visibility for the teacher and the working area.</li> </ul>	<ul style="list-style-type: none"> <li>Delimitation of the working areas (e.g. rubber bands or lines in relief).</li> <li>Prior recognition of the working area.</li> <li>Avoid areas with excessive lighting.</li> <li>Modify the dimensions of the working area.</li> </ul>
<b>Teaching strategy</b>	<ul style="list-style-type: none"> <li>Kinesthetic, tactile, visual (cards) and/or verbal help</li> </ul>	<ul style="list-style-type: none"> <li>Kinesthetic, tactile and visual help</li> </ul>	<ul style="list-style-type: none"> <li>Kinesthetic, tactile and visual help</li> <li>Use of Braille (if possible)</li> </ul>
	<ul style="list-style-type: none"> <li>Explain individually or in small groups (no more than three)</li> </ul>	<ul style="list-style-type: none"> <li>Provide instructions for small groups.</li> </ul>	
	<ul style="list-style-type: none"> <li>Consistently use visual support (e.g. demonstrations, pictos, etc.)</li> <li>Use short, precise sentences to ensure the comprehension of the information.</li> <li>Define clear objectives (What do you want the student to do?)</li> <li>Remove distractions (e.g. equipment, noise areas and lights, etc.)</li> <li>Use constant and immediate feedback.</li> </ul>		

<p><b>Time</b></p>	<ul style="list-style-type: none"> <li>Do short-term tasks to enhance the concentration of the student as long as possible.</li> </ul>	<p>-----</p>	<ul style="list-style-type: none"> <li>Intermittent feedback to facilitate the task.</li> <li>Facilitate the structuring of time and space.</li> </ul>
<p><b>Rules</b></p>	<ul style="list-style-type: none"> <li>Simplify and/or modify. The rules can be re-introduced as the student acquires mastery of each level: <ul style="list-style-type: none"> <li>Allow more bounces and/or rebounds in sports such as tennis, volleyball, etc.</li> <li>Allow more wins or extended contact with the ball (e.g. volleyball or basketball).</li> <li>Modify the number of players per team, so there is more continuity in the game. For example: <ul style="list-style-type: none"> <li>ID: Reduce the number of players to avoid distractions or facilitate follow-up games.</li> <li>VI/II: Increase the number of players to facilitate follow-up games.</li> </ul> </li> <li>Manage and standardize the teams.</li> <li>Reduce the number of players to enhance freedom of movement and ensure more active participation of the student with a disability.</li> <li>Reduce the official lengths and distances of the courts (e.g. make the penalty shot closer to the goal in soccer or the free throw closer to the basket in basketball)</li> <li>Reduce or increase the time for certain actions (e.g. passing, throwing, ball possession)</li> <li>Use different scoring systems. For example, vary the types of passes, forcing every teammate to touch the ball before scoring.</li> </ul> </li> <li>Reduce competitive elements.</li> </ul>		

	Ataxia	Athetosis	Hypertonia
<b>Material</b>	<ul style="list-style-type: none"> <li>• Addressing the weight, texture, shape and size of the material.</li> <li>• Material easy to handle and adapted to the type of grip.</li> <li>• Use of auxiliary materials (e.g. ramps for throwing, gloves, Velcro, etc.)</li> </ul>		
<b>Organization of the group</b>	<ul style="list-style-type: none"> <li>• The entire group, small groups or individual work depending on the needs of the student.</li> </ul>		
<b>Supports</b>	<ul style="list-style-type: none"> <li>• Depends on the activity (optional) and level of need.</li> </ul>		
<b>Space (Working area)</b>	<ul style="list-style-type: none"> <li>• Modify the working area: <ul style="list-style-type: none"> <li>○ Play closer to the net in divided field sports.</li> <li>○ Increase the size of goals.</li> <li>○ Decrease the height of the basketball hoops or the volleyball net.</li> </ul> </li> <li>• Use smooth surfaces that provide stability to the movements.</li> <li>• Avoid very cold temperatures (which increase hypertonia)</li> </ul>		
<b>Teaching strategy</b>	<ul style="list-style-type: none"> <li>• Explain to the whole group.</li> <li>• Demonstrate and do examples.</li> <li>• Provide kinesthetic and tactile help.</li> </ul>		
<b>Time</b>	<ul style="list-style-type: none"> <li>• These students have much higher energy expenditure than the rest of their teammates.</li> <li>• It is important to manage the time: <ul style="list-style-type: none"> <li>○ Increase the time to complete each task.</li> <li>○ Increase the rest periods (more continuous breaks)</li> </ul> </li> </ul>		

## Rules

- Be flexible applying the rules for students with severe coordination problems (e.g. steps in basketball)
- Simplify and/or modify rules so they can be re-introduced as the student acquires a higher level of self-confidence:
  - Allow more bounces and/or rebounds in sports such as tennis, volleyball, etc.
  - Allow more wins or extended contact (e.g. volleyball or basketball)
  - Modify the number of players per team, so there is more continuity in the game.
  - Manage and standardize the teams.
  - Reduce the number of players to enhance freedom of movement and ensure more active participation of the student with a disability.
  - Reduce the official lengths and distances of the courts (e.g. make the penalty shot closer to the goal in soccer or the free throw closer to the basket in basketball)
  - Reduce or increase the time for certain actions (e.g. passing, throwing, ball possession)
  - Use different scoring systems. For example, vary the types of passes, forcing every teammate to touch the ball before scoring.
  - Reduce competitive elements.

	Short Stature	Loss of limb or limb deficiency	Leg-length difference	Impaired muscle power	Impaired range of movement
<b>Material</b>	<ul style="list-style-type: none"> <li>Adjust size and weight to the person's height (material for younger ages).</li> </ul>	<ul style="list-style-type: none"> <li>Address the size and weight so it is easy to handle, hit, etc. with a single limb.</li> </ul>	<ul style="list-style-type: none"> <li>Size, weight and texture (material to help work at a slower rate: e.g. a ball ballasted would go slower)</li> </ul>	<ul style="list-style-type: none"> <li>Whether the effect is greater in upper or lower limbs, think of the weight, texture, size and shape so that it is easy to handle, hit, etc.</li> <li>Auxiliary material: gloves, Velcro, etc.</li> </ul>	
<b>Organization of the group</b>	<ul style="list-style-type: none"> <li>Entire group or smaller ones</li> </ul>				
<b>Supports</b>	<ul style="list-style-type: none"> <li>Depends on the activity and level of need of the student</li> </ul>				
<b>Space (Working area)</b>	<ul style="list-style-type: none"> <li>Modify the working area, for example: <ul style="list-style-type: none"> <li>Play closer to the net (especially for students with strength problems).</li> <li>Decrease the height of the basketball hoops or the volleyball net.</li> <li>Reduce the size of the working areas.</li> </ul> </li> <li>Use smooth and flat surfaces that facilitate the movement of wheelchairs or crutches.</li> </ul>				
<b>Teaching strategy</b>	<ul style="list-style-type: none"> <li>Explain and demonstrate.</li> <li>Offer alternative activities if necessary.</li> </ul>				
	<ul style="list-style-type: none"> <li>Pay attention to the distances to do or complete something.</li> </ul>	<ul style="list-style-type: none"> <li>Pay attention to the possible asymmetries due to the different lengths of limbs.</li> <li>Take care to prevent imbalance and falls.</li> </ul>	<ul style="list-style-type: none"> <li>Kinesthetic and tactile help</li> </ul>		

<p><b>Time</b></p>	<ul style="list-style-type: none"> <li>• Continuous breaks are required for the following: <ul style="list-style-type: none"> <li>○ Students with muscular dystrophy who tire quickly.</li> <li>○ Students who use prostheses to prevent their overuse (e.g. causing chafing or instability).</li> <li>○ Preparing any auxiliary material that students can use to perform tasks, such as wheelchairs, crutches, prostheses, gloves.</li> <li>○ Stretches for students with disabilities.</li> </ul> </li> <li>• Provide more time for the execution of tasks. For example, students will perform more complex movements, thus using more time.</li> </ul>
<p><b>Rules</b></p>	<ul style="list-style-type: none"> <li>• Simplify and/or modify.</li> <li>• Rules can be re-introduced as the students gain self-confidence: <ul style="list-style-type: none"> <li>○ Allow more bounces and/or rebounds in sports such as tennis, volleyball, etc.</li> <li>○ Modify the number of players per team, which helps give continuity to the game.</li> <li>○ Manage and standardize the teams.</li> <li>○ Reduce the number of players to promote greater freedom of movement if, for example, the student uses a wheelchair.</li> <li>○ Modify official distances of the pitch or court (e.g. reduce the size of football fields, shorten the distance for penalty shot or free throw to the basketball hoop).</li> <li>○ Reduce or extend the time for sports activities such as passing or shooting a ball.</li> <li>○ Use different scoring systems. For example, vary the types of passes, forcing each teammate to touch the ball before scoring, etc.</li> <li>○ Reduce competitive elements.</li> </ul> </li> </ul>

## *b) Depending on the type of sport*

### Individual sports or games

Individual sports are those that are played by one person, performing a series of motor actions in a certain space in which the main objective is to overcome certain difficulties, outdoing him- or herself in relation to time or distance, or performing a specific technical action that can be compared to others who also perform under the same conditions. The following are examples of adjustments applied to a sport like athletics (track and field), in which the basic skills of running, jumping and throwing are included:

- Athletes with visual impairments have a guide person who informs them about what actions to take and potential difficulties they might encounter. This method can be transferred to physical education sessions in a simple and effective way. In pairs, each student will have a different role: one will be the athlete and the other will be the guide. The guide will take a small rope and each student will hold one end, with the guide leading his/her classmate around.
- In a test of the long jump, the guide can also help the athlete using the rope. This time the assistance will be exclusively verbal, counting the steps made before the jump, performing a countdown marking the pacing and jumping with claps or verbal instructions (“calls”).
- An example of hearing impairment could be the introduction of visual signals, such as waving a flag to mark the starting time or establishing a code of nonverbal communication.

### Sports or games with divided field or court

Sports with a divided field are competitive games in which players meet face to face in different spaces separated by a net (stripe, rope or empty space) in order to throw or hit an object above it so that it falls on the other half of the field or is in a position that is difficult to be returned. Such activities can be done both individually (e.g. badminton) and in a group (e.g. volleyball).

In these sports, it is also necessary to carry out a series of adaptations to achieve full inclusion in physical education. The adaptations will depend on students' abilities, in order to enhance their strengths and mitigate their weaknesses or limitations in the activity.

To enable students to achieve broader knowledge about these type of sports, it is important to modify certain elements that may allow for the achievement of competencies and skills of students. Thus, the material can be changed by substituting for something lighter or bigger; also, the rules can be changed so that a longer reaction time is offered to both think and act. For example, for students with



cerebral palsy participating in a tennis lesson, we can carry out a series of modifications to adapt the grip of the racket to make it more comfortable when handling, as well as the introduction of the standard double bounce during the game. The rule of a double bounce could also be applied to volleyball to facilitate students in their learning.

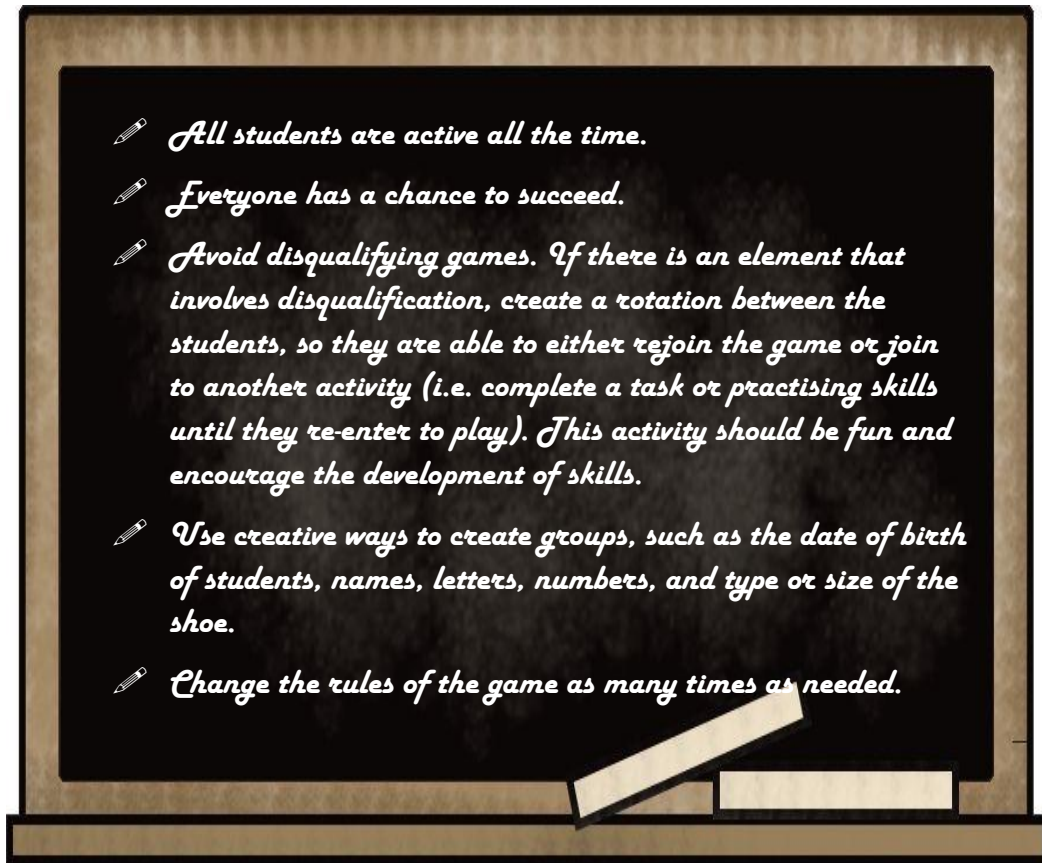
### Sports or games in a common field

In team sports, two teams interact with each other to achieve the same objective. Movements, actions and gestures are oriented for the entire team, contributing to succeeding – more specifically, to scoring: points (e.g. basketball) goals (e.g. handball) or reaching a particular location faster (e.g. rugby).

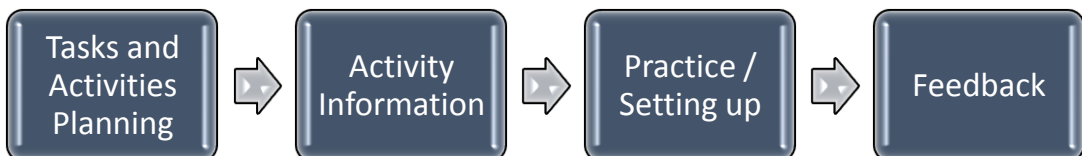
These sports often involve some type of direct contact between the players, which differs depending on the sport, and cooperation, intelligence and group cohesion are required along with the individual qualities of the players. To effectively create inclusion, all students have to participate actively in the game, meaning that we cannot simply assign students with disabilities to the role of referee or goalkeeper for the entire activity. We will establish a set of rules that allow full participation in physical education sessions:

- To encourage students with physical disabilities and/or reduced mobility, all members of the team must touch the ball before scoring, changing spaces and materials as well as organizational strategies (e.g. alternating the direction of the passes).
- For example, in a basketball game that includes visually impaired people, the introduction of sound balls may mark the distance of the ball and the opponent, as well as how frequently the ball bounces. In addition, a delimitation of the field can be made with elastic rubbers (i.e on poles like a “fence”), so that they can determine for themselves the limits of a “flexible” space.
- For students with hearing impairments, we can establish the rule of disallowing verbal language to ask for the ball or call one’s teammates, so students must maintain constant visual contact and a set of communication codes with their teammates. We can also conduct an awareness session regarding hearing impairment, in which students are required to carry an audio-player throughout the physical education class meanwhile the teacher will give a normal lesson.

## 5.2. PREMISES FOR THE IMPLEMENTATION OF GAMES AND ACTIVITIES



Once we know these premises, it is time to plan the activity. To do this, we should follow these steps:

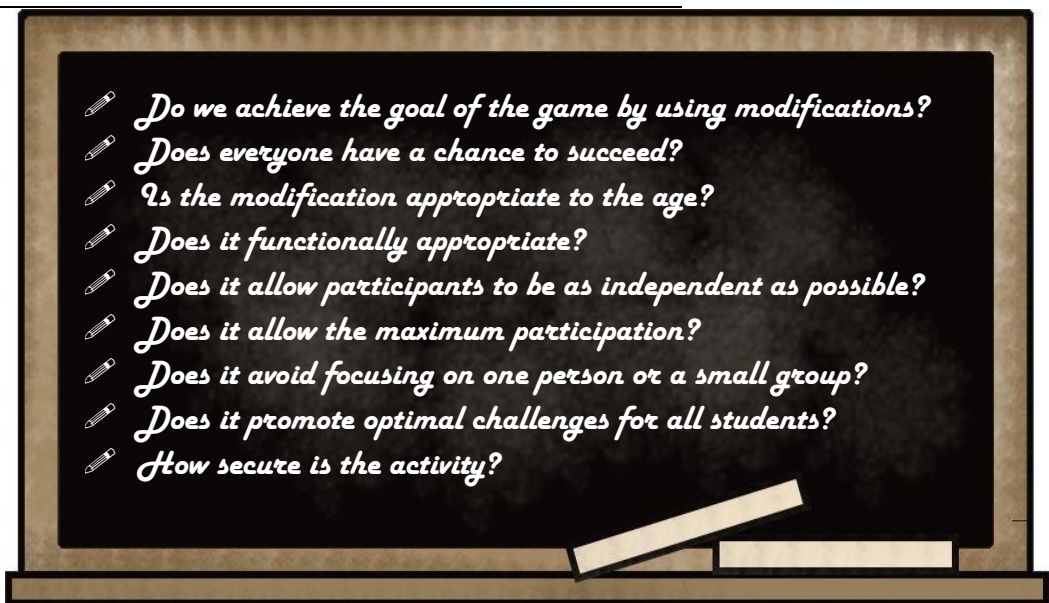


### a) Planning tasks and activities

When planning tasks, we must take into account the starting point of students, the progress to be made (during the course, the unit we are working on, the activity, etc.), and the ultimate goal to achieve:

- It is important for the teacher to consider and identify possible barriers that a student might encounter and thus ensure that they are removed.
- The starting point of knowledge, skills and abilities will be established according to what the students learnt in previous courses.
- The teacher will determine the priorities and goals of the students in that block of content.
- The necessary adjustments will be applied so that the activity is successfully performed by all students.

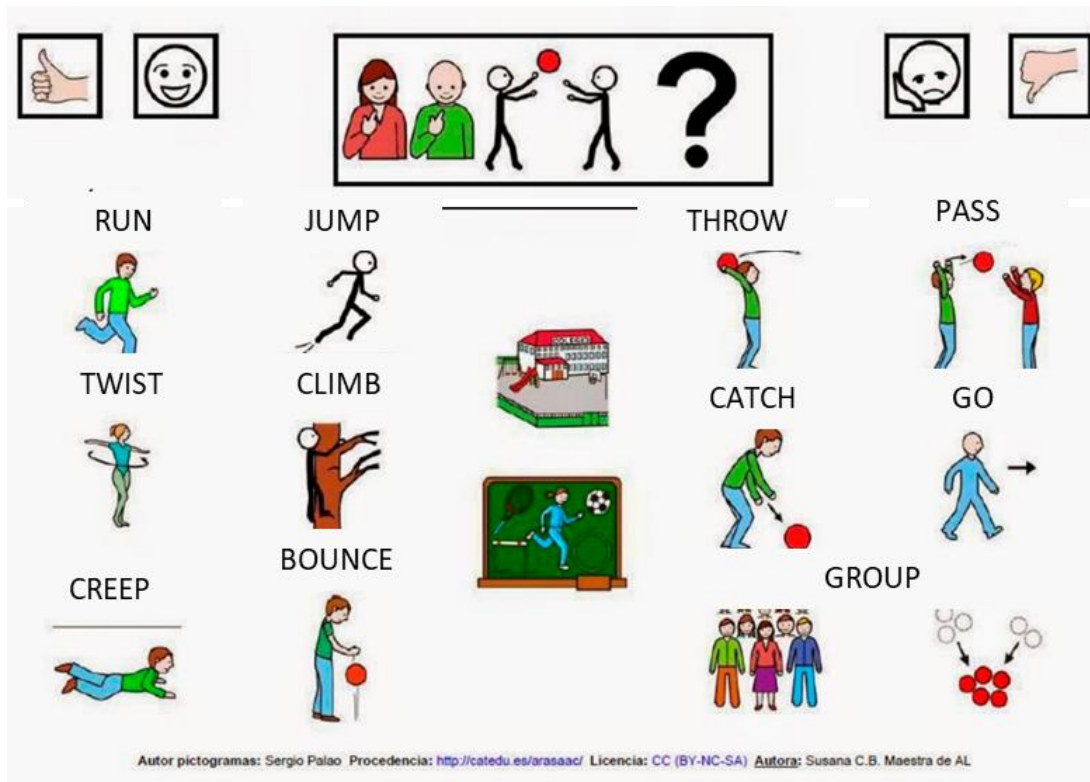
After choosing the activities and changes that are considered necessary, there are a number of important questions to be answered prior to the session. These questions can even be evaluated throughout the activity, simultaneously with the adaptations and development of the game if it is clear that the goal is not being reached:



### b) Explanation of the activity

The success of an activity is based on both good planning and a clear explanation. For the latter, a good oral explanation is required, and if necessary, the use of visual aids should be considered. Explanations can be supported by pictographs

(representative of the activity), apps and/or another Information and Communication Technologies -ICT-(see the resources directory at the end of this guide).



### c) Setting up

During the development of the session, it is possible some problems will arise. However, it is important that teachers be able to react on time and make adjustments if an activity does not work as expected. In the teachers' reaction process, it is very important to focus on how educators interpret the information coming from students (both verbal and non-verbal) throughout the game and their ability to solve problems.

### d) Feedback

The feedback at the end of each session is a powerful tool in the learning process of both educators and students. It is important to consider this constructive feedback for future classes in order to consider potential modifications. Similarly, students benefit from the use of a feedback system, as it provides a more comprehensive approach that helps to achieve greater learning.

### **5.3. TEACHING METHODOLOGIES FOR THE INCLUSIVE MODEL**

#### **Individual work**

With a common goal for the entire group, each student works individually, progressing faster or slower according to individual circumstances. Also, the feedback provided by educators should be individualized according to students' needs.

#### **Instruction in small groups**

This entails grouping students into small groups of two to 10 individuals. For example, to learn the chest pass technique in basketball, students are divided into small groups and arranged in a circle. In one of the groups, there is one student using a wheelchair. To facilitate his/her inclusion, the group is divided into smaller groups of three students, in this way, the distance of the movements required to perform the action is reduced, allowing the student to pass the ball to any peer without having to move his/her wheelchair.

#### **Instructions for large groups**

Here the entire class participates at the same time following the educator's instructions. For example, if there is one student with short stature, we can establish the rule of defending him/her from at least one metre away, restricting the entrance in the defence area and/or limiting the attack to a maximum of three seconds.

#### **Peer tutoring**

In the peer tutoring methodology, higher performing students serve as academic tutors to help other classmates with certain limitations to learn in an easier and equal way. Due to the shortage of resources and assistant teachers, this system may be a good solution to complement the work of some students and achieve their goals. For example, in an activity of gymnastic skills, a student whose ability for a specific technique is higher helps a classmate with lower motor competences (e.g. intellectual disability).

#### **Cooperative learning**

This is when students use cooperative learning methodology, that is, working together to achieve the same goal/s. This can be particularly effective when the main learning standards are based primarily on the development of social skills. Take, for example, acro-sport activities, in which there is a student with a hemiparesis in his/her right side and the student group builds a pyramid. It should be important that the rest of classmates organize the group in such a way that the weaker side of a student with hemiplegia is close to a classmate, giving it greater stability and therefore greater functionality.

## 5.4. METHODOLOGICAL GUIDELINES ACCORDING TO DISABILITY GROUPS

Below are the most noteworthy aspects to promote inclusion for each disability group in order to perform inclusive physical activities (Sanz & Reina, 2012).

### Hearing impairment

- Get students attention before speaking.
- Place yourself in front of the student/s with hearing impairments, making visible lip movements and facial expressions.
- Mitigate and avoid background noise.
- Give short and simple explanations.
- Provide any new vocabulary for the students in advance.
- Do not scream, but use a normal rhythm and intonation.
- Do not talk while writing on the blackboard or taking notes.
- Complement oral explanation with visual elements.
- Demonstrate the activity explained.
- Avoid direct sources of light.
- Provide a clear sequence of content.
- Use cards or posters for understanding the new exercises.
- Make use of visual signs and symbols at the beginning and end of the activities, as well as during changes or the introduction of variants.
- Ensure awareness of the rules.
- Use scoreboards in activities to show the score.
- Pay attention to the use of prosthetic help.

### Visual Impairment

- Stimulate orientation in the space (i.e. familiarization of the environment), using the rest of visual function, interpreting the sound of the movements (i.e. pacing), and identifying the visual field (e.g. moving around the student while he/she is looking ahead, visual acuity (i.e. showing him/her objects at different distances) or the contrast sensitivity (e.g. balls of different colors).
- Offer a variety of experiences and sensory inputs during activities.
- Get similar goals for everyone, reducing the fear to move independently from a previous exploration of the court/classroom.
- Increase the hearing, kinesthetic and tactile stimuli, stimulating the self-exploration of the objects.
- Detail as much as possible the activities, increasing self-determination, supporting only when is necessary, using a precise language, or informing the general to the specific aspects of the activities.
- Use an adequate feedback, ensuring that they understand the message, and informing before and after the activity.
- Delimitation of the field of play to stimulate autonomy.

- Call the student while we are getting closer, using a neutral language (e.g. avoiding sentences like “look here”)
- Use a stable location in the field of play, avoiding intense sources of light.

### Physical impairment

- To promote and encourage ambulation if the student is capable. If he/she has trouble maintaining a standing position for a prolonged period, we should design activities that involve sitting or lying down.
- Avoid activities that can cause imbalances or excessive mechanical load in people with unilateral support or hemiplegia.
- Avoid crashes, body friction, pressure and blows to the affected parts of the body. Seek wheelchair stability (back injury anchors; pelvic; femoral and tibial; feet) and avoid long periods of sitting to prevent the occurrence of pressure ulcers or continued rubbing.
- Avoid unexpected noises, as they can cause muscle spasms (e.g. cerebral palsy) and sharp sensations (temperature changes in the environment or water, etc.), as well as situations that may cause anxiety or excitement.
- Avoid high levels of fatigue in certain pathologies, mainly in muscular dystrophies, as this can lead to frustration for the student. Provide resting periods or substitutions in team sports (e.g. basketball).
- Allow time off for relaxation of the muscles or the introduction of flexibility exercises, especially in those with disabilities involving muscle spasticity (e.g. cerebral palsy).
- Pay attention to body symmetry, especially when equipment is implemented.
- Improve, maintain or delay the loss of muscle strength (especially in neuromuscular diseases). Weak musculature or limited range of motion leads to serious movement limitations.
- Space:
  - ✘ Delineate space to compensate mobility difficulties, especially ensuring that doors are wide enough for wheelchair mobility and accessibility.
  - ✘ Use a flat floor to facilitate displacement.
  - ✘ Address dispersion activities, especially when there are wheelchairs.
  - ✘ Address any sliding surfaces as they may cause imbalances and falls as well as lead to an ineffective use of the wheelchairs.
- Material:
  - ✘ Use frames, canes or walkers for balance problems.
  - ✘ Use foam or other material to facilitate grip (e.g. grab-ball) or the activity itself. Take into account the characteristics of weight, texture, size, etc.
  - ✘ Introduce any specific material used in the adapted sport.
  - ✘ Use alternative communication systems: Bliss board, syllabic board, templates with images, gestures or hand signals, among others.

- As for wheelchairs, consider the following:
  - ✧ Back and seat: Must be adapted to the characteristics of the user. For example, at high levels of spinal cord injury (SCI), support will have some vertical tilt to facilitate trunk stability, or lower levels of SCI should have a backing that allows lower trunk mobility in all directions. Use proper cushions, preferably silicone, to mitigate the occurrence of bedsores or friction.
  - ✧ Footrests: If they are not fixed, try to securely fasten them to avoid possible crash or injury.
  - ✧ Brakes on wheels: If the chair is not a sport wheelchair, take care with the brakes during the activity, while can be easily used during stationary activities (e.g. throwing).
  - ✧ Radios: If the chair is a sport wheelchair, and activities involve joint participation with other wheelchairs (e.g. wheelchair basketball), it is recommended to cover the radios to avoid injuries.
  - ✧ Anteroposterior and lateral stability: Depending on the activity or sport to perform, as well as mastery in handling the chair, it is preferable to use seats with the proper angulation or camber (outward tilt of the wheels) or use of a rolling wheel when there is a risk of falling (e.g. serving in tennis).
  - ✧ Whenever possible, use a wheelchair suitable to the sport being played.
- Promote the development of body image and relationship with the surrounding environment, with special emphasis on improving respiratory function, postural adjustment and balance. Undertaking physical activity and sports activities with preventive purposes contribute to the reduction of the incidence of associated health problems (e.g. obesity), increase autonomy in daily life activities and improve the quality of life.
- Prioritize knowledge and acceptance of the body.
- Be flexible with the demands in correcting homework, since a large demand can be detrimental to self-image and self-efficacy. The student must execute the movement or task according to their level of competence.
- Work on basic motor skills to promote autonomy.
- In case of reduced lower body involvement, enhance the muscle strength of the upper limbs.
- Provide a support teacher (or student collaborator) to facilitate active participation in the sessions.

### **Intellectual disability**

- Use visual representations (e.g. pictograms) and/or use examples during the explanation of exercises.
- Propose activities that encourage autonomy.
- Be patient and honest in assessing students' success.
- Provide pedagogical success, by designing tasks with attainable challenges.



- Do not underestimate the potential of students.
- Respect the phases of motor development.
- Pay attention to the movement features.
- Reduce the number of decisions/tactical activities.
- Establish limits of acceptable behaviour during the class.
- Simplify tasks and provide clear and logical progression to promote understanding.
- Use short periods of learning.
- Provide a longer time to answer if needed.
- Use simple scoring system.
- Modify tasks when students lack motivation.
- Maintain a ritual or pattern in the sessions.
- Use reinforcements (colours, sounds, material, etc.).
- Eliminate sources of the distraction in the environment.
- Use flexibly defined boundaries or spaces.
- Put more emphasis on cooperation and social interaction than on individual performance.

## 6. Material Resources and ICTs

Working by competences across the different subjects of the curriculum is especially important for the development of students' skills. If teachers are able to combine the methodology used in the different subjects for a common goal, the students will be able to build knowledge by themselves.


This section provides information to address the potential use of various commercial materials according to students' abilities. Teachers are given a guide with instructions for building their own low-cost material or adapting conventional PE material.

### 6.1. USES OF SPECIFIC MATERIALS

	Never or unusual
	Occasionally or pending the level of impairment
	Recommendable


#### LITTLE BAGS

These facilitate the handgrip function and release actions, crucial for throwing, relays or juggling games.

Hypertonia		Imp. Muscle Power		
Ataxia		Short Stature		
Athetosis		Visual Imp.		
Limb Deficiency		Hearing Imp.		
Impaired ROM		Intellectual		
Legs Length Differ.		Disability		


### GRAB-BALL

These balls are soft, flexible and designed to be thrown and received in any manner. It can be thrown and rolled like a ball. Additionally, an inflatable ball or balloon can be introduced through one of the hexagon holes, providing a moderate bounce when inflated.

Hypertonia	Green	Imp. Muscle Power	Yellow	
Ataxia	Green	Short Stature	Red	
Athetosis	Green	Visual Imp.	Yellow	
Limb Deficiency	Yellow	Hearing Imp.	Red	
Impaired ROM	Yellow	Intellectual	Yellow	
Legs Length Differ.	Red	Disability	Yellow	


### GIANT BALL

These can be used in both recreational and educational fields and is used in powerchair soccer.

Hypertonia	Yellow	Imp. Muscle Power	Yellow	
Ataxia	Yellow	Short Stature	Red	
Athetosis	Yellow	Visual Imp.	Yellow	
Limb Deficiency	Red	Hearing Imp.	Red	
Impaired ROM	Yellow	Intellectual	Yellow	
Legs Length Differ.	Yellow	Disability	Yellow	


### SLOW MOTION BALL

These are balloons with sand or similar material inside, which slows down the displacement of the ball, facilitating its conduction and manipulation.

Hypertonia	Yellow	Imp. Muscle Power	Yellow	
Ataxia	Green	Short Stature	Yellow	
Athetosis	Yellow	Visual Imp.	Red	
Limb Deficiency	Yellow	Hearing Imp.	Red	
Impaired ROM	Yellow	Intellectual	Green	
Legs Length Differ.	Yellow	Disability	Green	


## TACTILE DISCS

This material develops the tactile sense in both hands and feet. They offer a broad range of game opportunities, from the basic perception of the tactile structures of the disc to games using blind folders and memory games, among others.

Hypertonia	Red	Imp. Muscle Power	Yellow	
Ataxia	Yellow	Short Stature	Yellow	
Athetosis	Yellow	Visual Imp.	Green	
Limb Deficiency	Red	Hearing Imp.	Green	
Impaired ROM	Red	Intellectual	Green	
Legs Length Differ.	Yellow	Disability	Green	


## YUK-BALL

A yuk ball is a stuffed, mouldable ball made with small marbles and a non-toxic gel, whose combination creates a fluid environment, offering a new tactile sensation that facilitates its manipulation.

Hypertonia	Green	Imp. Muscle Power	Yellow	
Ataxia	Green	Short Stature	Red	
Athetosis	Green	Visual Imp.	Yellow	
Limb Deficiency	Yellow	Hearing Imp.	Red	
Impaired ROM	Yellow	Intellectual	Yellow	
Legs Length Differ.	Red	Disability	Yellow	


## RINGS

These can be thrown, juggled, rolled and manipulated when fully inflated. They are usually filled with balls that increase the possibilities of manipulation and are pleasant and attractive.

Hypertonia	Green	Imp. Muscle Power	Yellow	
Ataxia	Green	Short Stature	Red	
Athetosis	Green	Visual Imp.	Red	
Limb Deficiency	Yellow	Hearing Imp.	Red	
Impaired ROM	Yellow	Intellectual	Green	
Legs Length Differ.	Red	Disability	Green	

## SOUND BALLS

Sound balls have a low bounce, making them an excellent object for games and skills development. Inside of the balls are bells whose sound allows one to identify their position in space.

Hypertonia	■	Imp. Muscle Power	■	
Ataxia	■	Short Stature	■	
Athetosis	■	Visual Imp.	■	
Limb Deficiency	■	Hearing Imp.	■	
Impaired ROM	■	Intellectual Disability	■	
Legs Length Differ.	■			

## 6.2. BUILDING OUR OWN APPLIED MATERIAL TO PRACTICE PARA-SPORTS

### Boccia



To build boccia balls, we will use similar methods to create juggling balls:

1. Red, blue and white balloons; rice; glue; scissors and tennis balls.
2. Red, blue and white balloons; rice; plastic bottle and scissors.

### Boccia ramps

- a) Cut 4 sheets of wood, 180 x 10.5 cm
- b) Place the whitewashed wood on the base of the mould, and on top of this put the backside of the mould to get the shape we want. Let it dry for 12 hours.

- c) Once it is dry, hook the ramp to the base through an iron piece. Then screw it (pic. 2).
- d) In order to adjust the height of the ramp to adapt it to the student's needs, place a lever in the foot (pic. 3).
- e) Create two extenders to be able to give more length to the gutter (see pic. 4).
- f) Finally, two extenders are needed to give a longer length to the ramp channel (see pic. 4).

**Material:** Laminated/plywood material of 4 mm, white glue, wooden mould-press for the ramp, wooden ramp foot (pic. 1), iron foot with the rotating shaft (pic. 2), lever (pic. 3).



### Swimming for people with visual impairments

**Diving goggles with limited vision:** We can modify diving goggles by putting some cotton on the inner side of the goggles or using tape to limit the vision of the students.

Materials: Diving goggles, cotton, adhesive tape.

**Guide stick:** This stick is used to inform the student when he/she must turn. The teacher can provide this information to the student from the shore, using a swimming noodle. Using this material can prevent the student from crashing into the wall.

Materials: plastic stick and swimming foam.



## Fencing

To practice this sport, we might need a long and flexible material in order to prevent students from getting hurt. According to the aim of the activity (to develop the technique or simply allow practice or free play), we can use the appropriate materials. Examples of such “swords” are a cut swimming noodle and long sticks of foam.



## Track and Field

To adapt the different field events, we can use diverse materials that are affordable and readily available.

**Shot put:** Sacks filled with sand or rice, with different sizes and weights to facilitate the grip and throw function. Likewise, we can make juggling balls with rice using the methods used to make the boccia balls previously explained.



**Javelin:** We can create a kind of javelin with swimming noodles. Thus, the grip is simple and the safety of the students is guaranteed.

## Hockey

When a student uses a wheelchair and has difficulties handling an object with his/her hands, we can build a *T-stick* that can be attached to the student's wheelchair. For this, it is necessary to make a T-shaped object, hard enough to be able to control and hit the ball. It can also be created by attaching a table tennis racket to the chair structure (see picture).

Material: Hardboard or plastic.



## Soccer/Goalball

If we decide to play sports for people with visual impairments, it is important to work in a quiet environment in order to hear the sound coming from the balls and be able to locate them. To produce this type of ball, we can use different materials, although the simplest to create are those made with foam. For this, you can cut or make a small incision in the ball to introduce the bells or any sound element that can report the location of the ball.

Material: Foam balls, bells or other sound elements.



## 6.3. MOBILE APPS

### Visual Impairment

Different apps can recreate various types of visual impairment, and it is possible to vary the degree and intensity of the impairment. Simulations can help to raise awareness for different visual impairments.

### VIAOPTA SIMULATOR

This is an application that simulates different types of visual impairment. With this app, one can experience wet or dry macular degeneration related to age, choroidal neovascularization, myopia, diabetic retinopathy, diabetic macular oedema, central or branch retinal vein occlusion, glaucoma, cataracts, macular hole traction and others.





## VISION SIM

This is an application for iPhones and iPads. It was developed to allow people with normal vision to experience the world through the “eyes” of a person with visual impairments (through the camera view of the device).



## BE MY EYES

*Be My Eyes* is a free mobile app designed to bring sight to the blind and visually impaired. With the press of a button, the app establishes a live video connection between blind and visually impaired users and sighted volunteers. Every day, volunteers are lending their eyes to solve challenges in the lives of the blind and visually impaired. When a person with a visual impairment needs visual assistance with something, he/she, through *Be My Eyes*, contacts a sighted volunteer (who speaks the same language) by video. The sighted volunteer will explain the things that the mobile phone of the person with the visual impairment is pointed at (signals, expiration dates on food containers, etc.).



## Limitations in communication

There are different types of disabilities that can affect both speech and the difficulties of expression and communication, such as autism or Down syndrome. Some applications, however, can be a great help for the teacher-student interaction, not only in the classroom but also in other situations that require instant communication. All these apps use pictograms to support or facilitate conversations. In addition, there are apps that can be used generally, for everyday life.

## PICTO TALK

*Picto Talk* is a messaging application for Android that allows users to communicate between smartphones using pictograms. All pictograms can be modified, adapted or deleted. Any pictograms can be added, including real images. Finally, this app allows one to configure the audio, language, colours, text size and other features.



## COMUNICATE

This is an app built to encourage communication. This application can be used to facilitate communication when it turns difficult, for example between a PE teacher and a student with functional diversity during PE sessions. It can incorporate images on which one can make notes and diagrams. In addition, it has a collection of pictures and pictograms, which show instructions and situations related to PE and its content blocks: physical performance, games and sports, environment, body expression, physical condition and emotions.



## PICCOM

This is an alternative and augmentative communication system for children with oral and/or verbal communication difficulties. The user can use pictograms and play a voice message of the phrase built.

It also has an option in which it shows your personal information in case of emergency; as another option, you can send your last known GPS position in a previously configured e-mail.



## BALUH

This app works on the Augmentative and Alternative Communication (AAC) that offers image-based communication solutions for people who have difficulty speaking. It is structured into four sections – “my book”, “I want”, “greetings” and “who am I” – and it works using the pictograms.



## Others

### CLASS DOJO

This application helps teachers to improve students' behaviour in their classrooms in an easy way. It captures and generates data on the behaviour of the students which teachers can share with parents and administrators.

Teachers can use this application to inform students about positive behaviours or to manage their classes, while parents can check on the progress of their kids at school. In this way, it will be easier to make an individualized assessment depending on the skills of each student.



### APPSCESIBLES

APPScesibles is an application that gathers the needs of people with disabilities in one app. It tries to find (accessible) points of interest as well as other enabling tools for everyday life. All applications have been validated by the groups they are addressed to.



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## 8. Interesting Websites

	<p><b>Incluye-T</b></p>	<p><a href="https://incluyeteblog.wordpress.com">https://incluyeteblog.wordpress.com</a></p>
	<p><b>Spanish Paralympic Committee</b></p>	<p><a href="http://www.paralimpicos.es">www.paralimpicos.es</a></p>
	<p><b>Trinidad Alfonso Foundation</b></p>	<p><a href="http://www.fundaciontrinidadalfonso.org">www.fundaciontrinidadalfonso.org</a></p>
	<p><b>The FER Project</b></p>	<p><a href="http://www.proyectofer.es">www.proyectofer.es</a></p>
	<p><b>International Paralympic Committee</b></p>	<p><a href="http://www.paralympic.org">www.paralympic.org</a></p>
	<p><b>The Inclusion Club</b></p>	<p><a href="http://www.theinclusionclub.com">www.theinclusionclub.com</a></p>



# Activities for Visual Impairment



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Esfuerzo**



# Visual Impairment



## MAIN SESSION GOAL:

Raising awareness towards visual impairment.

## STANDARD OF LEARNING:

Use adequate recourses to resolve issues relating to visual impairment.



BLOCK OF CONTENTS: Games and physical activities.

## SESSION:

Raising awareness with/and games about visual impairment.



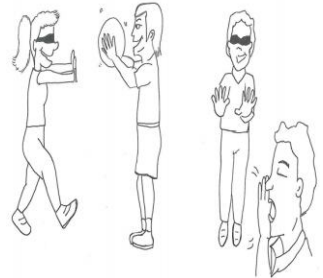
## MEETING TIME

### EXERCISE 1 "Can help me to guide myself?"

Everybody will be paired up. One person wears blindfolds and the other person is the guide. We will go from situations where the blindfolded person depends a lot on the guide to very "independent" situations. In the dependent situations the information will be given/recieved via the kinesthetic- tactil canal and the more extern information, which is mainly through the auditiv canal. A) The seeing person places his/her hands on the shoulder of the blindfolded person for guiding b) holding on one hand c) holding onto a rope; d) spoken signals ; e) with the help of a "sounding ball".

Variations: Progressivley increae the speed (until the participants run (slowly) in all the activities;

Material: "Sound balls", blindfolds, ropes.



Pairs

### ACTIVIDAD 2 "Catch me, if you can!"

Three pairs are "the catchers". In every couple, one person will wear blindfolds and the other person will be the guide. A "catcher" couple can only get rid of this function when the student with the blindfold manages to catch another couple. The "catchers" carry a cloth for identification; a person is "caught", when he/she got touched anywhere on his/her body with this cloth (which is again beeing passed on for the new catcher).

Variations: Walking, holding on one hand, holding onto a rope.

Material: Blindfolds, cloths.



Pairs/ Big group



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# Visual Impairment



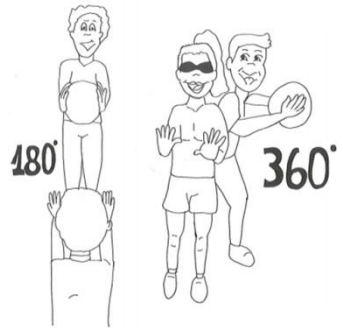
## MAIN PART

### ACTIVITY 3 “Halfmoon”

The partner without the blindfold uses a sounding equipment right in front of his/her partner with blindfold, so that he/she can identify and remember the sound. Then the “seeing” partner takes quietly four straight steps back in an angle between  $0^\circ$  –  $180^\circ$ ; in a semicircle frontal facing his/her partner and then making sound with the equipment again. Now, the student with blindfold is supposed to try with five steps to go to the spot where he/she hears the sound; if possible also trying to catch the sounding equipment in the end. This exercise helps to work on orientation with sound and to get a feeling for distance and sound.

Variations: Using or not displacements; open the “circle” to 360 degrees.

Material: Blindfolds; sound equipment (f.e. balls)



Pairs

### ACTIVITY 4 “Noah’s Ark”

Every couple chooses one animal (dog, cat, chicken) and they (already blindfolded) spread themselves in the available space. The professor helps to disorient the students and mix up the group. After a starting signal, each couple tries to find back together, only using their animals’ sound. Later we can try to just use one or two animal sounds, so that the students have to really try to improve and sharpen their orientation in space and auditory information and processing in order to find their partner.

Variations: A) everybody picks up one card with an animal painting on it B) each couple agrees on a clapping rhythm (instead of the animal sound).

Material: blindfolds, cards with animal paintings on them.



Pairs/Big group

# Visual Impairment

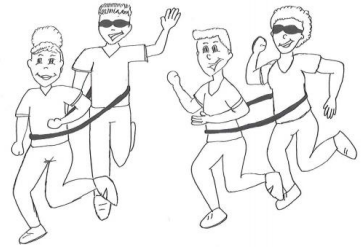


## ACTIVIDAD 5 "Swap the horse!"

Again the students are divided into couples, one of each pair is the "rider" (he/she is wearing a blindfold) and is looking for "a horse" (student without blindfold) with a free rein (he/she is wearing a rope around the hip/belly). The "horses" walk around the space. Two or three players don't have a horse from the beginning on. After a signal from the teacher, the riders have to try to change their horses as quickly as possible, to avoid missing out on a horse. For finding each other all riders have to clap and all horses have to nicker.

Variations: Moveing in different ways (sideways, backwards).

Material: Blindfolds, ropes.



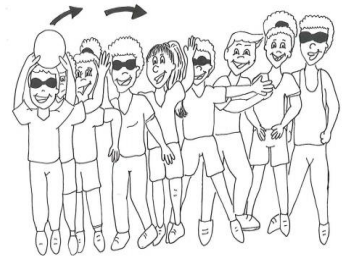
Pairs/Big group

## ACTIVIDAD 6 "The transport chain"

All people of one group have to get in a row. Then they will pass the ball backwards and forwards accoring to the instructions of their teacher: on the left side, in between the legs, over the head... The students should think of adaptatinons to this game, which allow students with blindfolds the most participation.

Variationes: Change the size of the balls and the intensity of their sound cambiar ; the distance between the participants; the students wearing blindfolds;

Material: Sound balls; blindfolds



Group of five

# Visual Impairment

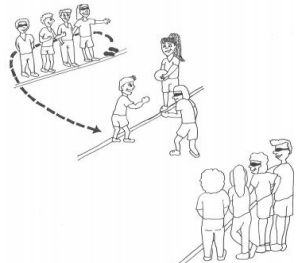


## ACTIVIDAD 7 "The tissue"

We are dividing the class into two equal groups, which again will each be subdivided into two groups. The game we are playing is called "the tissue"; but before we start the students have to present adaptations which – in their opinion – will help the students with blindfolds to participate equally successful in the game (e.g. make a full round around your group before running to catch the tissue, when you are running "against" somebody with blindfold; use a rope; run backwards.

Variations: Introduce an additional skill, dribble a ball to the center and back...

Material: Two balls with bells inside, blindfolds..



Two teams

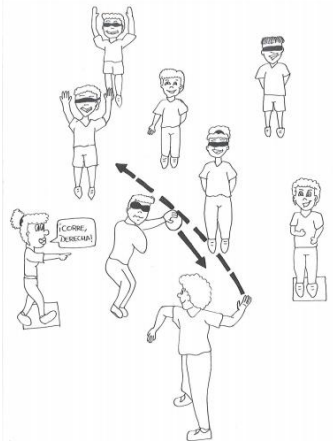
## ACTIVIDAD 8 "Beep Baseball"

One team is hitting while the other team is trying to defend. The defending team is spread freely all over the space of the game, everybody wears. In addition, two players who can see are based in each one of a bases on the left and the right side of the hitting (also without blindfold). The pitcher (with blindfold) tries to throw the arcstic – beep – ball to the (first) hitter (they are both in the same team), who tries to hit the ball with eather his/her hand or a bat (however discussed first) in any direction of the field as far as possible. When the ball is hit, the person on the base (which is on the opposite side of the direction the ball is flying to) starts clapping/making sounds for the batter to know where to run to. He/she tries to be on the base before somebody of the opponent team reaches the ball; thusly trying to run as far as possible on the round. All members of the "hitting team" have a turn with the bat. Then both teams change their roles. The team that achieved to run most rounds, wins.

Variaciones: use different simulation glasses for visual impairment

Material: Two cones, a sound ball\*, spongy/foamy baseball bat, blindfolds.

\*What a sound ball is, and how to make it, will get explained in the main guide in the section of "Create your own material".



Two teams



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## GOODBYE TIME

### ACTIVITY 9 "The pizza"

All participants are sitting on the floor in a circle, one behind the other, everybody looking into the same direction. They will "make a pizza" on the back of the person in front of them: knead the dough (massage the back), spread the tomato sauce on the pizza (make big circles), put on the bacon (softly "hammer" with the bottom side of your fist), put on mushrooms (put all five fingers on each hand close together and make soft pressure points all over the back), put on corn (make tapping movements with your fingers – like on a keyboard), and finally put a lot of cheese on the pizza (make a tingling movement with the fingertips).

Variations: Use different equipment/materials for the massage, like tennis balls, let them move as if they were a certain ingredient (f.e. tuna – let them roll on the floor like a fish).

Material: Blindfolds.



Big group



# Activities for Visual Impairment : FOOTBALL



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# Visual Impairment



## MAIN SESSION GOAL:

Raising awareness towards visual impairment.

## STANDARD OF LEARNING:

Use adequate recourses to resolve issues relating to visual impairment.



## BLOCK OF CONTENTS:

Games and physical activities.

## SESSION:

Indoor football, adapted to people with visual impairment.



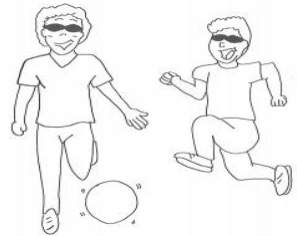
## MEETING TIME

### ACTIVITY 1 "Follow the star"

One person of each couple dribbles the ball between his/her legs around the space; the partner tries to follow. When the teacher gives a signal, each couple changes the role with passing the ball once.

Variations: Each couple is making continuous passes, at a signal of the teacher one pair has to pass their ball to another couple.

Material: One sound ball /couple, simulation glasses for different kinds of visual impairment for everybody



Pairs

## MAIN PART

### ACTIVITY 2 "The 4 corners"

Every couple dribbles freely through the field, while passing the (sound) football back and forth. When the teacher calls out a number, the pairs have to try to make it as fast as possible in one of the four corners, which matches the number, or into the center. Additionally they should keep on passing the ball without losing control over it.

Variations: Change the numbers to colors, add exercises the students have to do, once they reach the corner...

Material: One sound ball/ couple; sensibilisation glasses for visual impairment /person.



Pairs/Big group



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# Visual Impairment

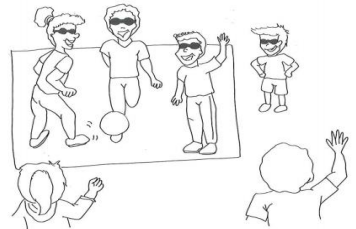


## ACTIVITY 3 "Sharks and crocodiles"

Half of the group is playing with a sound ball inside a marked space. The other half of the group, is positioned outside of this marked space. At a signal of the teacher, the "outside group" is running into the zone and trying to shoot the ball of the "inside players" outside of their space, as quickly as possible. Then there is a change: The shark turn into the crocodiles and vice versa.

Variations: Adding more objects and fixing stations where to leave the "stolen objects" (e.g. ropes, cones, objects with different forms...)

Material: One sound ball for half of the group; one sensibilisation glasses per person.



Big group

## ACTIVITY 4 "Pass and go"

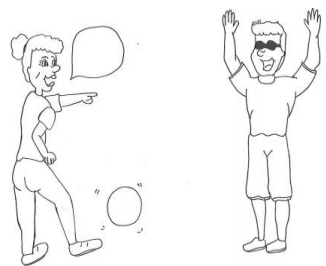
In this exercise we will work on passing and receiving a ball. Working in pairs:

- Tell to your partner the side on which the exercise will be performed.
- Provide to your partner auditive signals when you pass the ball to him, and viceversa.
- Perform "silent passes": signals are not allowed.

Changing students roles after complete these three exercises.

Variations: Both partners using sensibilisations glasses to perform the exercises.

Material: One sound ball, one blindfold per couple.



Pairs

# Visual Impairment

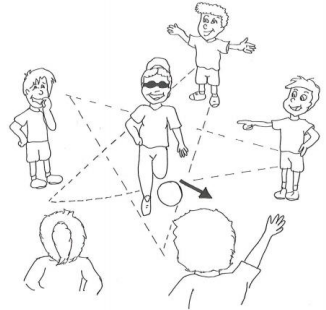


## ACTIVIDAD 5 "The star"

Every group makes a circle (like a star with five points) with one team member in the middle of it, wearing a blindfold. It is intended that the player in the middle passes/recieves the ball to/from each player, clockwise order. Once the player has passed to everybody in the star, he/she changes place with the person that first performed the pass. In this way, everyone is playing in the middle point.

Variations: Wearing all the players a blindfolder.

Material: One sound ball, one blindfold per group or per person.



Groups of six

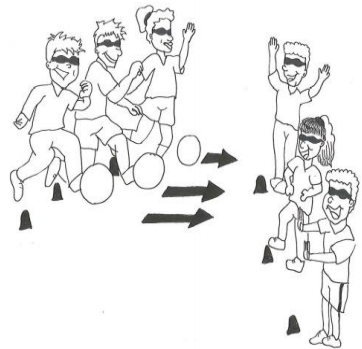
## ACTIVIDAD 6 "Passing rows"

Every group forms a row, and divides itself again in half, to stand there facing each other. The task is to dribble with the ball close to the person who stands vis-a-vis of one, and passing the ball to him/her at the end of the run. After the pass every player has to go to the back of his/her row and wait to recieve the next ball, in order to dribble and pass again.

Variations:

- Try to pass the ball through two cones (which stand half way) to the person vis-a-vis of you, follow the ball while running carefully. Queue up again, at the end of the row.
- Place cones in each row, so that each player has to dribbble around them in zig-zag, until a marked point where they have to pass the ball to the next person wainintg in the row.

Material: Six cones, one sound ball/group, sensibilisation glasses for visual impairment/person.



Groups of six

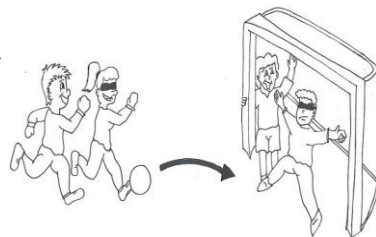


# Visual Impairment



## ACTIVITY 7 "Shoot"

Two couples. One person of each couple wearing a blindfold. The player with the blindfold has to dribble up to a goal and make a shot to the goal, all while receiving instructions and guidance from his/her partner. After the shot, he/she is defending in the goal (again – with the instructions and help of his/her guide. Swap the blindfold with your partner after one round.



Group of four

Variations: The guide will try to give less and less instructions. In the first phase, he/she will be right at the blindfolded players side, later on however, guide him/her from behind the goal.

Material: One sound ball and blindfold/ couple.

## ACTIVITY 8 "Four goals"

In the field, there will be eight cones set up to mark four goals of each one meter. Two teams (6 vs 6) play against each other; without goalie. A goal counts if the ball crosses the line of one of the two goals which are defended by the opponent team.



Groups of six

Variations: All players of one team have to touch the ball at least once before they can make a goal that counts.

Material: Eight cones, scrimmage shirts, two sound balls, sensibilisation glasses for visual impairment

# Visual Impairment

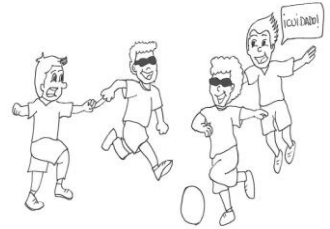


## ACTIVITY 9 "Football in couples"

A big group is divided into two groups. Each team consists of "N" couples. The participating couples have to hold onto a rope while playing. One of each couple is blindfolded. The guiding partner has to support his/her partner during the game but is not allowed to touch the ball him/herself. It has to be the player with the blindfold that has to pass, shoot, receive the ball etc.

Variations: All players wear sensibilisation glasses for visual impairment, but they play alone, without having a guide.

Material: Sound ball, blindfolds for half of the group.



Pairs/ team

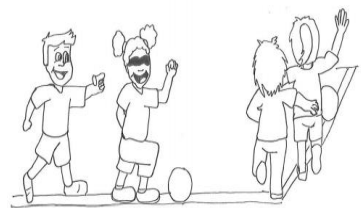
## GOODBYE TIME

## ACTIVITY 10 "Pacman"

All students are paired up in couples, one of each couple is wearing sensibilisation glasses for visual impairment, the other one is guiding. They have to dribble with the ball on the lines of the field, without losing control over the ball or stepping off the lines. One pair is trying to catch all the others... The caught couples a) help catching the others b) turn into the catchers themselves.

Variations: Everything equal but without dribbling a ball, using a blindfold instead of the glasses,...

Material: (Sound) balls, sensibilisation glasses for visual impairment, blindfolds.



Pairs



# Activities for Visual Impairment: GOALBALL



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# Discapacidad Visual



## MAIN SESSION GOAL:

Raising awareness towards visual impairment.

## STANDARD OF LEARNING:

Use adequate recourses to resolve issues relating to visual impairment



## BLOCK OF CONTENTS

Games and physical activities.

SESSION: Goalball



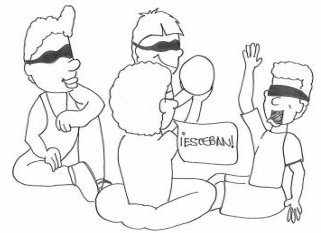
## MEETING TIME

### ACTIVITY 1 "Where is the ball?"

The students are sitting in circles on the floor and have to pass the ball clockwise. In the first two rounds, everybody should say his/her name so that the others know more or less the location where he/she is sitting.

Variations: say the name of the person you are going to pass the ball to; he/she has to make a sound. Throw / Roll the ball without saying a name; the group should try to avoid that the ball leaves the circle (you can make a bigger circle for this variation).

Material: Five Goalballs, one blindfold/person.



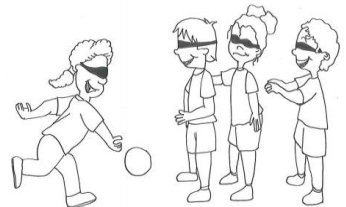
Groups of six/ Big group

### ACTIVIDAD 2 "Bowling"

All groups are arranged in rows; it's members stand behind each other, with spread legs and about one – two m apart from each other. One member of the group is going in front of the row and tries to roll the ball through the legs of his team mates. The people in the row have to try to adjust themselves and move according to the line of the ball.

Variations: The students must avoid to be hit by the ball.

Material: Goaballs or sound balls, one blindfold/person.



Groups of six



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# Visual Impairment

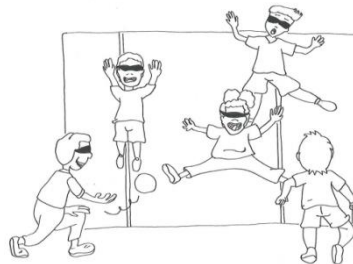


## ACTIVITY 3 “Noisy cementary”

The players are spread in the centre of a goalball field (they can orientate themselves with the lines as markings). In each end there are two players (without blindfold) whose mission it is to roll the ball on the floor in order to touch/catch a person inside the field and change the roles with him/her.

Variations: Everybody uses a blindfold.

Material: Goalballs, blindfolders.



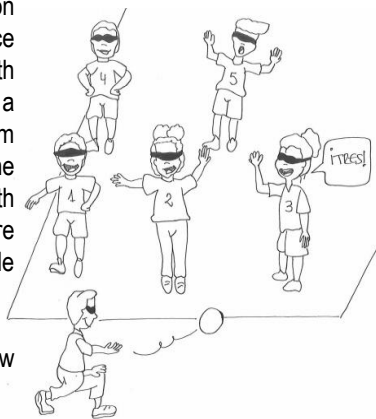
Groups of six

## ACTIVITY 4 “The numbers”

Two groups, each group in one play area. Three people on the front line and two or three people on the second line. Once students are placed, they will be listed correlatively with numbers (i.e.: 1,2,3...). The player who throw the ball (using a blindfold) should say out loud one number. The player from the other team with this number should indicate where he/she is in the play area (e.g.: I am here, here...). The player with the ball should try to send the ball to this specific area where he/she thinks the sounds is coming from. Important to provide feedback all the time about throw performance.

Variation: Once players know the play area, they should throw the ball without having any earing feedback.

Material: Goalballs, blindfolders.



Groups five-six



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# Visual Impairment



The students will gather on both sides of the field to see a demonstration of how the proper attack and defense technique look like and then to practice it themselves.

## Attack

Once oriented on the lines (on the floor) of the defense area or on the crossbar of the goal, the ball rests in the pitching hand while the other hand it supporting it from above. Now a hand movement is made backwards to then release the ball – as silent as possible – with speed forward, on the floor, before the landing zone.



## Defense

The body of the player should be directed towards the ball, so that he/she can quickly search in the area for the ball, either catching it or stopping it with the body fully stretched out to one of the sides; the legs are also stretched out but do not have too much space between them. Once the ball is caught or blocked the player has to get back into position as quickly as possible for passing the ball to a teammate or launching it oneself.





## MAIN PART

The students will gather on both sides of the field to see a demonstration of how the proper attack and defense technique look like.

### ACTIVITY 5 “Partner throws”

Two players stand facing each other in a straight line with a distance between them of about 8 or 9 m, meanwhile a third player is guiding this exercise, to give more dynamism to the activity. The task is to practice throws – using the floor as a tactile reference point – by the help of the following progressive exercises:

- The “thrower” indicates if he/she is going to launch the ball on his/her right or left side.
- The “thrower” indicates when he/she is releasing the ball, but not the side of the launch.

Variations: The “thrower” says nothing at all.

Material: Goalballs or Sound balls, blindfolds, tape.



Groups of three

### ACTIVITY 6 “Throws in a zone”

Two students of each group are placed at a certain distance away from their guide, who indicates in which direction they should throw the ball to. Once the ball is thrown, the guide rolls it back on the floor to the person who just had it, so that he/she can pass it on to the other player who is waiting for his/her turn to throw. Once each player with a blindfold made five throws, the rolls in the group change.

Variations: The players have to go and get the ball themselves, once they threw it (with or without help).

Material: Goalballs or Sound balls, blindfolds.



Groups of three

# Visual Impairment



## ACTIVITY 7 “Don’t pass!”

Three players of each group – who are with blindfolds - line up next to each other, with 2 meter in between them; the 4th player doesn't wear a blindfold. It is his/her task to throw the Goalball with speed at one spot in the line, while the three other players have to try to prevent the ball from passing through.



Variante: All players wear blindfolds; for making the act of throwing easier, the method of “calling” or clapping will be used.

Material: Goalballs or Sound balls, blindfolds.

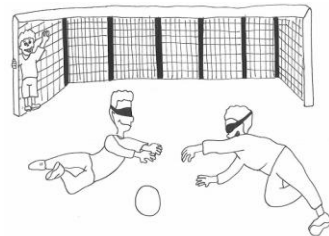
Groups of four

Now it will be time to explain to the students about the dimensions of the goalball field and the utility of the defense zone, the landing zone and the neutral zone. Now would also be the moment in which to explain the five aras of mobility or responsibility in the defense zone.



## ACTIVITY 8 “Getting to know the field”

Each group will gather in one of the defense zones of the two fields, which were marked before. Three members of each team go inside their defense zone; every one goes to the space he/she has to protect and is responsible for; the 4th team member helps them with orientation. The 4th player, who is outside the field can give indications in terms of numbers to help them move and orientate around the defense area; always facing the side of their opponents.



Variations: Follow the “relief lines”, who mark the field.

Material: Blindfolds.

Groups of four



# Visual Impairment

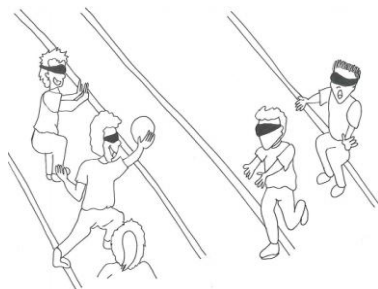


## ACTIVITY 10 “Mini games”

Two groups are placed in each field. We will now play a small tournament, with a double-entry system. One game will last five minutes; in case of a tie, the winner will be determined with the help of three penalty shots. Two students of the teams who are waiting, will be the referees during the games, aber they got initial instructions by the teacher.

Variations: increase the number of players in each field.

Material: Two Goalballs, blindfolds



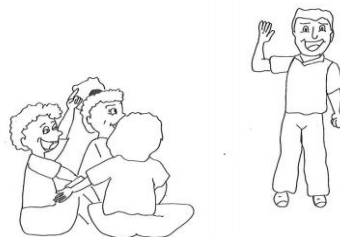
Groups of three

## GOODBYE TIME

## ACTIVITY 11 “Round of questions”

While the some of the students are playing, we will use the time with the students who are waiting, for asking questions about the game or resolving possible doubts about it. F.e. How many players are on a team? When can you throw? Can there be a player that can see what is happening during the game?

Variations: Feedback about how they feel or what they think about the session or Goalball in general.



Big group

# Visual Impairment

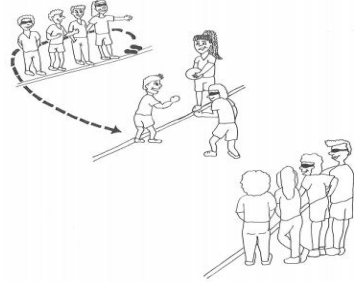


## ACTIVITY 12 "The tissue"

We are dividing the class into two equal groups, which again will each be subdivided into two groups. The game we are playing is called "the tissue"; but before we start the students have to present adaptations which – in their opinion – will help the students with blindfolds to participate equally successful in the game (e.g. make a full round around your group before running to catch the tissue, when you are running "against" somebody with blindfold; use a rope; run backwards).

Variations: Introducing an extra skill: dribbling a ball to the center and back...

Material: Two balls with bells inside, blindfolds..



Two groups



# Activities for Hearing Impairment



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# Hearing Impairment

## MAIN SESSION GOAL:

Raising awareness towards visual impairment.

## STANDARD OF LEARNING:

Use adequate recourses to resolve issues relating to hearing impairment.



BLOCK OF CONTENTS: Games for hearing impairment.

SESSION: Games for hearing impairment.



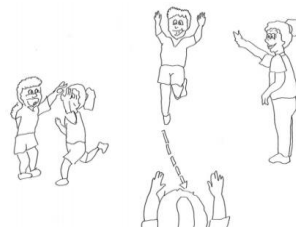
## MEETING TIME

### ACTIVITY 1 "Grouping friends"

The students are moving around freely in the field. According to what the teacher shows, they have to group up as quickly as possible, i.e.: the groups will have as many students as fingers, on the air, shows the teacher).

Variations: Use colors (of cloths); touch a color, which all student should try to find in the room and also touch, cards with signs on it (eye colors, etc.)

Material: Cards (with colors, signs..)



Big group

### ACTIVITY 2 "Safe me!"

All students are distributed freely in the field. Three students are the "catchers"; it is their task to catch somebody in order to be able to change the role. The rest of the group tries to run away; they can avoid/safe themselves from being caught when they follow the instructions of the teacher: if the teacher is hugging him/herself it means that they have to hug each other in order to "stay safe", if the teacher rises his/her arms, they have to jump on another student's back in order to stay safe (horse back riding), and if the teacher puts his arms down, the students have to get down on all fours in between the spread legs of another student – to stay safe...

Variations: different ways of moving in the field, different sizes of the field, more or less people as catchers.

Material: Three colorful scrimmage shirts



Big group



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# Hearing Impairment

## MAIN PART

### ACTIVITY 3 "Start marching!"

The teacher shows five speed levels, according to which the students have to move (from very slow to very fast). The teacher will demonstrate when explaining the game first which velocity he/she wants the students to move when he/she puts up one finger into the air, two, three, four and five.

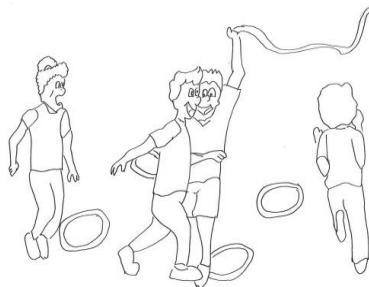


Variations: Change the ways of movement, e.g: backwards, crossing the legs...

Big group

### ACTIVITY 4 "Musical chairs"

We divide the class into two big groups and give a hoop to every student except 1 from each group. They have to place the hoops on the floor in form of a big circle (each group their own circle). Now the professor and one student stand in the centre of each circle while swinging a rope over the head. The students have to jog around the circle (2 m away from it) in the same direction the rope is swinging. When the rope stops, each student has to try to step into a hoop as quickly as possible. The student who didn't manage to occupy a hoop, will run from now on inside of the circle in the opposite direction. The game finishes when there is one winner left.



Two Groups

# Hearing Impairment

## ACTIVITY 5 "10 passes"

All players are divided into two equally big groups and are spread freely in the field. The aim of the game is that within one team the players try to pass the ball 10 times, without letting the ball touch the floor, or letting a player from the other team touch it. In case a throw gets intercepted or the ball falls on the floor, the other team gets the ball and starts again with counting from zero to ten points in a row is one point for the team. All team players should indicate (with fingers) the points during each attempt.

Variations: The player who has possession of the ball, is not allowed to move; it is not allowed to pass the ball to the same person you received the ball from.

Material: A ball.



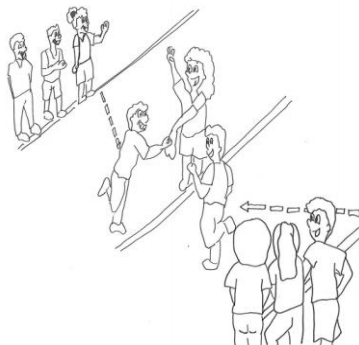
Two groups

## ACTIVITY 6 "The tissue"

The students stay in the same two groups from before, which get then subdivided in two smaller groups. This time "the tissue game" will be played with showing numbers (from one to eight) up in the air (the students from each team got previously assigned with numbers from one to eight).

Variations: Eight different ways of moving are discussed with the students (each way of moving is identifiable with a number from one to eight). One student from each team identifies with a number hence way of movement. When the teacher shows the number above his/her head, the relevant student from each team has to move as fast as possible to go and get the tissue.

Material: Cards with numbers on them.



Two groups



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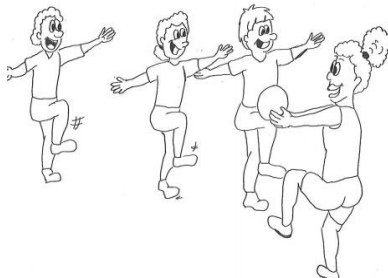
# Hearing Impairment

## ACTIVITY 8 "Silent aerobic"

The students will be placed in four rows, in a structure that allows everyone to see the teacher (interlaced). There are three instructions: a) red= stop, b) yellow= a new step will be introduced, c) green= all steps together. The teacher demonstrates a series of simple aerobic steps like the V-Step, the A-Step, Grapevine etc...and the students have to remember each step as well as the order of the steps, as it all builds up to a small choreography.

Variaciones: Every student has to come up with and instruct a new step.

Material: Colorful cards, black board/ whiteboard.



Big group

## GOODBYE TIME

## ACTIVITY 9 "Pictionary"

One member of every trio has to describe (without speaking) a phrase or represent/pantomime an object. The two others have to write down on a piece of paper what they think it is. The first person who gets it right, gets a point. The player with the most points wins.

Variations: Use other languages like sign language, or a language which is common in the area, but not the mother tongue of the students.

Material: Pen and paper.



Groups of three

# Hearing Impairment

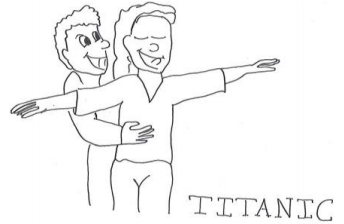


## ACTIVITY 10 "Cinema"

Every group has five minutes to agree on a well known movie which they want to play. They are allowed to discuss how they will do the pantomime later on. After the five minutes preparation time, every group has to pantomime their chosen movie in front of all the other groups. Every group has a pen and a paper on which they will write down their guess. Each group can only guess once per round. The group who gets it first right, wins a point; and whoever has the most points in the end wins the game.

Variaciones: Smaller groups, individuals, couples...

Material: Pencil and paper.



Groups of six





# Activities for Intellectual Impairment



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# Intellectual Disability



**MAIN SESSION GOAL:**  
Developing coordination and teamwork

**STANDARD LEARNING:**  
Using adequate resources to resolve situations relating to the intellectual disabilities.



**BLOCK OF CONTENTS:**  
Games and sports activities.

**SESSION:**  
Awareness and games towards intellectual disability.

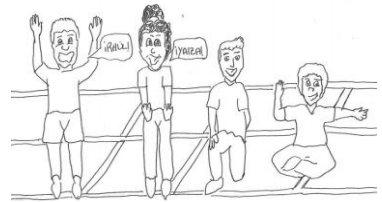


## MEETING TIME

### ACTIVITY 1 "The wave"

The group should try to make a "wave" among all group members. When each student rises to do the wave, they should say his/her name loudly. Connecting with the different possible variations.

Variations: Say the name of the peer on your right, two positions to the right, to say the alphabet in Spanish or English, a countdown, etc.

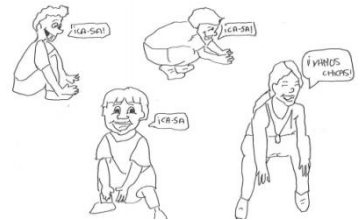


Big group

### ACTIVITY 2 "Funny words"

It consists of hitting the ground all at once and say words introducing the syllables to the beat of the beatings. At the same time, students will move at different speeds indicated by the teacher.

Variations: Doing the same to setback, that is, pronouncing the syllable at the time of transition from one step to another.



Big group

# Intellectual Disability



## MAIN PART

### ACTIVITY 3 "Take me the opposite"

Students will move freely through space and they will do the opposite slogan of what the teacher says to do, e.g.: if the teacher says to move on the right leg, students should move with the left one.

Variations: using equipment, for example a ball (to make passes: bouncing, rolling, etc), benches or chairs (to sit and get up), etc ...



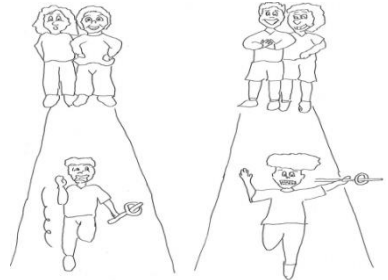
Big group

### ACTIVITY 4 "Relays with rings"

The game will consist of a relay carrying a ring using a pike. Each student will cover a return way.

Variations: Modifying the displacement type (lateral, zig-zag, etc), the size of the ring or the number of components per team.

Material: Pikes and rings, or small hoop per couple.



Pairs/ small group

# Intellectual Disability

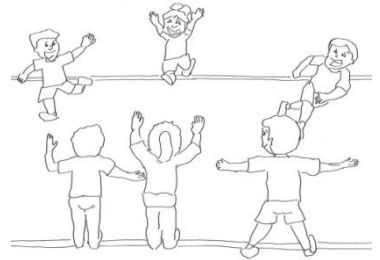


## ACTIVITY 4 "Nemo and the anemones"

Three students will be located in the middle line of the field while the rest of the peers will be placed at the other end of the field. The aim is to cross the field without the anemones catch you. Students who play the role as "anemones" only can catch their peers if they move laterally within the centerline.

Variation: Modifying the way of displacement, field size, number of anemones, etc.

Material: Colored bibs.



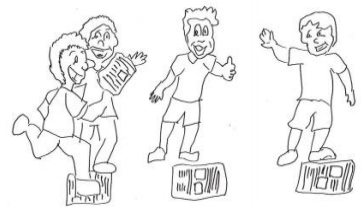
Big group

## ACTIVITY 5 "Don't be burned!"

A piece of a newspaper is provided to each student. Each of them will stand within the paper while students line up, with no more than 1 meter from each other. Afterwards, the last student in the row will try to reach the first peer in the line stepping on peers newspapers. The student who advances in line always has to carry his/her piece of paper in the hand.

Variations: Using materials with different sizes and / or heights, and modifying distances.

Material: One newspaper.



Small groups of four - five students

# Intellectual Disability

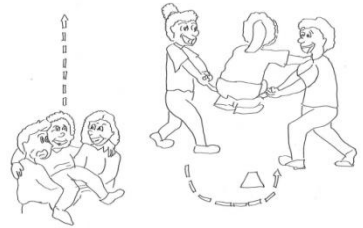


## ACTIVITY 6 A "The Queen's chair"

One student will be transported by two peers. A route with cones will be placed and students will have to turn around those cones.

Variations: Using a towel, a piece of cloth or a rope instead of the hands.

Material: Cones, ropes, towels.



Small groups of three students

## ACTIVITY 7 "The windmill"

Students will be placed in rows sitting on the ground, imitating the wings of the mills.

One student (the "leader") will run around the wings and when he/she touches the last member of a group, he/she says "come" or "go". In the case of "come", the students who are members of this wing should run in the same direction than the "leader". In the case of "go", students should run in the opposite direction. The last remaining student to arrive and sit, he/she will replace the "leader" in the next round.



Four groups

# Intellectual Disability



## ACTIVITY 8 "Ball control"

A zig-zag tour between cones of different difficulty levels is designed. This tour can be done in different ways: dribbling a ball with one hand (students can choose which hand), driving with the foot, etc.

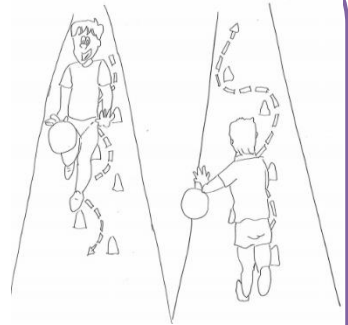
Points will not be given if the ball touches a cone or if the student loses control over the ball.

Students need to bounce the ball between the cones.

- 1) Distance between cones 2 m = 1 point / 2 points
- 2) Distance between cones 1.5 m = 2 points / 3 points
- 3) Distance between cones 1 m = 3 points / 4 points

Variations: Changing the cones for another equipment; balls of sizes and shapes.

Material: Cones, balls.



Couples/small groups

## GOODBYE TIME

## ACTIVITY 9 "The smiling caterpillar"

All students lying on the ground. Each student with his/her on the belly of another peer putting his head on the belly of the partner, so everyone is connected.

Variations: We can tell a joke, tickle our classmates, repeat a phrase with only one vowel, etc, in order to do not stop laughing.



Big group



Activities for  
Physical Disabilities (I):  
WHEELCHAIR  
SKILLS



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# Physical Disability



## MAIN SESSION GOAL:

Awareness of physical disability.

## STANDARD OF LEARNING:

Using adequate resources to resolve situations relating to the physical disability.



## BLOCK OF CONTENTS:

Games and sport activities

## SESSIONS:

Wheelchair handling



## MEETING TIME

### ACTIVITY 1 "Pack-man"

One student in a wheelchair has to try to catch the group. Different variants will be introduced in the game as: number of catchers, reducing the space, using elements of the environment e.g.: court lines, etc.

Variations: Students who do not use a wheelchair have to move differently, e.g.: using one leg, etc.

Material: Wheelchairs, ropes, etc...



Big group

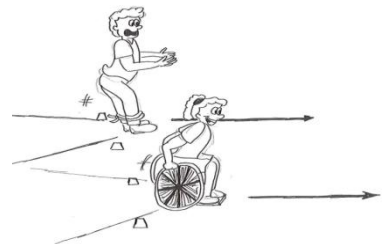
## MAIN PART

### ACTIVITY 2 "Traditional relay"

Two or three students in each group will use a wheelchair and the rest of the group will have both feet tied with a rope, limiting their mobility. It is a 15 m go and return relay. The winner group will be the fastest group in finishing all the tours. At the end of each tour students have to make a transfer from the sport chair to a daily chair in order that next student can use the chair.

Variations: Zigzag, obstacles, etc.

Material: Wheelchairs, ropes.



Groups of five



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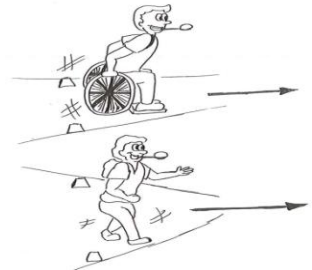
# Physical Disability



At the end of the previous exercise, we will ask students about what they think is the best way to propel the wheelchair. We will insist in the following aspects: a) the trunk flexion to avoid lifting the front wheels; b) the symmetrical support of both hands at the time of the drive, avoiding oscillations in the trajectory; c) the hands support slightly behind the center of gravity, reaching an extensive tour of the arms, in order to reduce high but inefficient propulsions; and d) using the closest hand to the rotation axis in order to perform the rotations.

## ACTIVITY 3 “The transport of eggs”

The activity consists of a relay carrying a table tennis ball in a spoon hold with the mouth. All teams compete together. Half of each group uses the wheelchairs and the other half perform the tour standing. Roles will be changed in the second round.



Variations: Simultaneously transporting a cone on the head.

Material: Wheelchairs, spoons and table tennis balls.

Numer of groups according to available chairs

## ACTIVITY 4 “Zig-Zag relays”

Six cones are placed in a row for each group, spaced at intervals of 2 m. Students need to pay attention in applying the theoretical concepts explained at the beginning of the teaching unit. Students need to perform the zig-zag and perform a turn 180° to perform the return way. As in the previous activity. The transfer between the sport and daily day chair it is necessary in order the next student competes.



Variations: Turning 360° in each cone before going to the next one.

Material: Wheelchairs, cones

Numer of groups according to available chairs

# Physical Disability

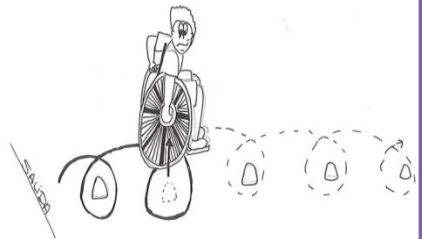


## ACTIVITY 5 "Multi-stepped relay"

Maintaining the structure of the previous activity, students should discuss the order of participation in the relay. So, the first student should go to the first cone, turn 360°, pick up the cone from the floor and come back to the start line as fast as possible. Students can pick up one or two cones. At the end of the activity, students will explain the way they pick up object from the floor. As previous activities, the transfer to a different chair will be part of the relay.

Variations: Collecting balls of different sizes (golf, tennis, football, etc.)

Material: Wheelchairs, cones.

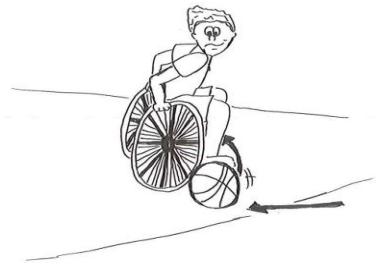


Number of groups according to available chairs

## ACTIVITY 6 "Collecting balls"

Using the interactive discovering learning style, students will learn how to pick up a ball from the ground. This technique uses the inertia that the wheelchair has in motion. Students will practice the skill, varying the initial conditions of the balloon: static, dynamic, etc.

Material: Wheelchairs, basketballs.



Number of groups according to available chairs



## GOODBYE TIME

### ACTIVITY 7 "Stretch and remember"

During the stretching time in pairs, the teaching asks the students to remember those parts of the wheelchair that he/she will said loud out. Depending the area of the wheelchair that the professor mentions, the students stretch one part of the body or another:

- Wheel → legs,
- Back rest → back
- Etc.

Material: Wheelchairs, cones.



Pairs



# Activities for Physical Disabilities (II)



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# Physical Disability



**MAIN SESSION:**  
Awareness of physical disability.

**STANDARD OF LEARNING:**  
Using adequate resources to resolve situations relating to the physical disability.



**BLOCK OF CONTENTS:**  
Games and sport activities

**SESSIONS:**  
Games for people with physical disability



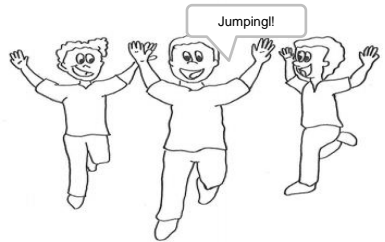
## MEETING TIME

### ACTIVITY 1 "The King"

The material (blindfolds, wheelchairs, crutches, etc...) is distributed among students so that each one can simulate a disability type. Students are grouped in group of three and one of the group move through the space doing what they want, the other two need to imitate similar movements. Roles will change after a while...

Variations: Using additional material

Material: Wheelchairs, crutches, ropes, tennis balls.



Group of three

### ACTIVITY 2 "Battle of crabs"

In pairs, students sit on the floor, back against back. When teacher gives the signal, students start the battle turning their backs, without leaving the pelvis from the floor, to touch the knee of their classmate. Every touch is reward with a point.

Variations: Touching different parts of the body: shoulders, belly, etc.



Pairs

# Physical Disability



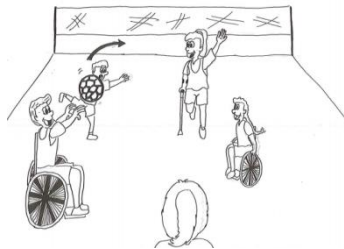
## MAIN PART

### ACTIVIDAD 3 "The ten passes"

Main group divided into two groups, each one placed in one side of the volley field. One team will start with the ball and will try to make 10 consecutive passes without losing the ball. If the ball falls to the ground, but possession is retained, the pass count is reset.

Variations: All the teammates have to touch the ball.

Material: Two grabball, wheelchairs, crutches, tennis balls.



Two grupos

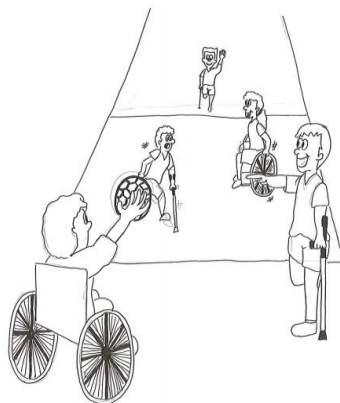
### ACTIVIDAD 4 "Prision ball"

Prision is a game where two teams face-off against each other. In this game, behind each team, is established a prison area. Whenever a player gets hit (the ball touches him/her), he or she must go to prison, behind the opposite team. They are stuck there until they can throw a ball and successfully hit someone and then, they can return home to their team. Players can also be "dead" if when they catch the ball this falls down.

If the ball bounces before hitting someone, the player will not be condiered touched.

Variations: If a player catches the launch of someone from the other team in the air, that person goes to the graveyard.

Material: Two grabball, wheelchairs, crutches, ropes, tennis balls



Two grupos

# Physical Disability

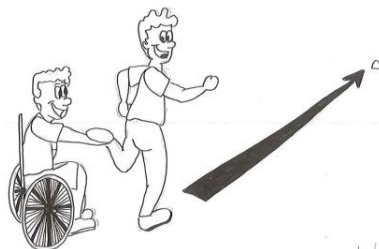


## ACTIVIDAD 5 "Three legged sprint"

In pairs. One player moves jumping on one leg on the floor and the other student will hold the leg that his/her partner is not using for moving. In case one of the students is using a wheelchair, this student will be in charge of holding the leg of his/her partner. Couples have to travel certain distance and come back to the start point.

Variations: Distance, path, using upper limbs as support.

Material: Ropes, balls, crutches.



Pairs

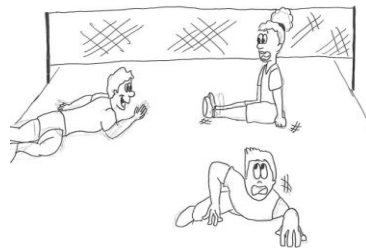
*It will be explained the movement technique to move on the floor, applied to sports such as sitting volleyball. It will pay special attention in the way that feet are placed, there are different variants according to the type of disability: a) unilateral amputation above the knee, b) double amputee; and c) remaining (e.g.: polio)*

## ACTIVITY 6 "Tag!"

Using a volleyball court (9x9m) or a sitting volleyball court (10x6m). One player chases other players in an attempt to "tag" or touch them with their hands. All displacements are performed without using the lower limbs. Professors should encourage students to find the most efficient and effective way to move.

Variants: Using specific movement: crawling, etc.

Material: Crutches, ropes, etc.



Big group

# Physical Disability

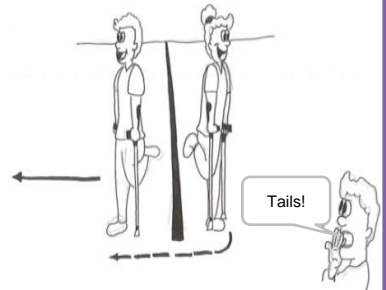


## ACTIVITY 7 "Heads or tails"

Have the students divide into two teams. Label one team "heads" and the other "tails". Lay out two center lines that are parallel to each other and 1.5 m apart. Then set up two boundary lines about 6-7 m from the center lines for each team to cross for their safe zone. To start, make teams stand with their backs toward each other at the centerlines. Professor calls out heads or tails. If it was tails, the tails team must run to their safe zone. The heads team will turn around and try to tag the tails team before they reach their safe zone. After each toss and chase, players are to return to the centerline. Displacement is always performed in a straight line to avoid hit other students.

Variaciones: Using other signs: "black and white".

Material: Crutches, ropes.



Pairs



# Physical Disability



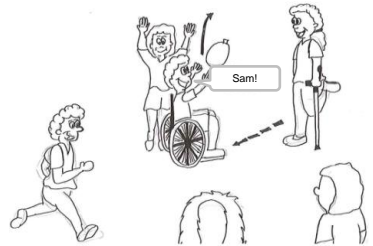
## GOODBYE TIME

### ACTIVITY 8 "The balloon must not fall"

In groups of eight it will be formed a large circle. One student in the central position with a balloon, who strikes the balloon up at the same time that yell a classmate name. The called student has to move to the center of the circle to hit the balloon and yell a new name.

Variations: Use different materials to throw.

Material: Chairs, crutches, ropes and balloon.



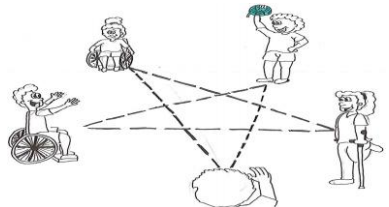
Groups of eight

### ACTIVITY 9 "The star"

In group of eight. Each group forms a circle and has a ball of wool, which will pass a student to form a star.

Variations: All the class using three different colors of wool to form three different stars.

Material: Chairs, crutches, ropes, balls of wools.



Big group/ groups of eight



# Activities for Physical Disabilities: BADMINTON



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# Physical Disability



**MAIN SESSION GOAL:**  
Sensitize toward the physical disability.

**STANDARD LEARNING:**  
Using the adequate resources to resolve situations relating to physical disability.



**BLOCK OF CONTENTS:**  
Games and sport activities.

**SESSION:** Badminton.



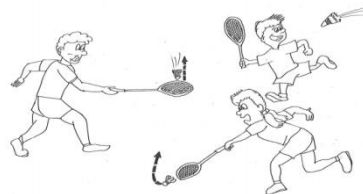
## MEETING TIME

### ACTIVITY 1 "Familiarization"

Students will move around the class hitting the shuttle, discovering the most efficient ways to the shuttle and how to pick it up from the ground. Also trying different racket grips.

Variations: Exchanging the shuttle when crossing with a partner avoiding it from falling.

Material: Rackets, shuttles, network or rubber band.



Individual

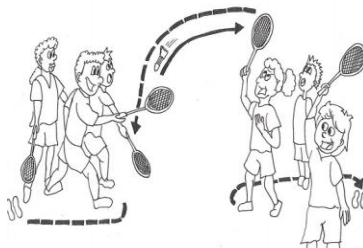
*As some students might present potential displacement difficulties, we can adjust the net according to necessities, e.g.: setting the net a greater high we increase the response time.*

### ACTIVITY 2 "Hit and Go"

In each side of the field, we set a group of six students, placing them in two rows of three each. With a collaborative approach, the first of the row hits the shuttle and moves to the end of the queue to wait his/her turn. The goal is to make as many hits in a row as possible.

Variations: Promoting some competition between both team in order to get points. Reducing the space if there are students with displacement difficulties.

Material: Rackets, shuttles, network or rubber band.



Groups of six students



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# Physical Disability



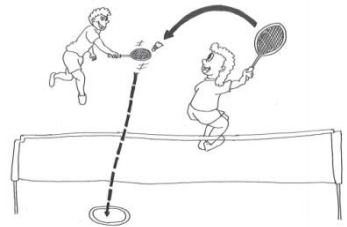
## MAIN PART

### ACTIVITY 3 “Forehand & backhand”

Each couple will use one half of the field. One student will throw the shuttles to his/her mate who will perform forehand & backhand shots, sending the shuttle over the net trying to place the shuttle within a ring displaced in the ground.

Variations: Both students throw and hit the shuttle simultaneously.

Material: Red, snowshoeing, flyers, rings.



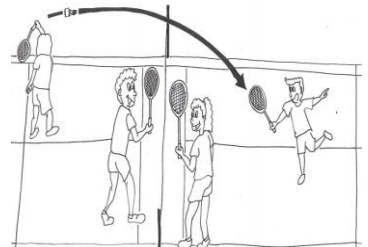
In pairs

### ACTIVITY 4 “Long hit & Drop-shot”

Displacing a group of four student per field, two in each side. One player will be located near the net and the other at the end of the field, alternating long and drop-shots. Students will change roles.

Variations: We can introduce small and lateral displacements in each shot.

Material: Net, shuttles, rackets.



Groups of four

# Physical Disability

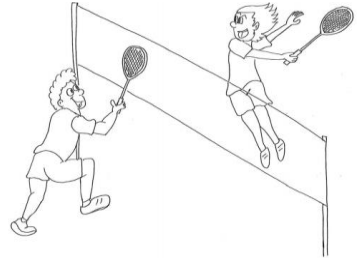


## ACTIVITY 5 "Individual games"

In a small field, students will perform individual matches of two or three minutes of duration. At the end of each match, one of the rows will rotate to right or left in order to that all students play with will their peers.

Variations: Reducing space or delimit play areas.

Material: Rackets, shuttles, net.



Individual/pairs

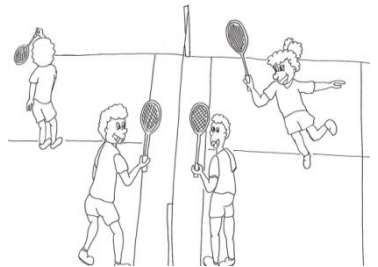


## ACTIVITY 6 "Game in pairs"

In a more extended space than in the previous activity, students will play a pair matches, practicing the different shots worked during the session. Each match will has a duration of 34 min and afterwards, students will change the opponent.

Variations: Reducing space or delimit play areas.

Material: Rackets, shuttles, net.



Groups of four



## GOODBYE TIME



### ACTIVITY 7 *“The zombie”*

Each student will take a paper that may be blank or have something writing on it: “zombie”, “detective” and “sleeping”. Students with papers that say “zombie” can put to sleep their peers winking their eyes, but trying not to be caught by those students with the “detective” papers. Students with the “sleeping” paper will let them fall backwards on the ground yelling “Ouch!” Finally, there will be a student on the role of “nurse” that will revive all those sleeping peers sending them a kiss.

Variations: The “zombie” can exchange their role with other peers sticking out their tongue.

Material: Paper and pencil.

Big group



Activities  
Physical Disabilities:  
SITTING  
VOLLEYBALL



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# Physical Disability



## MAIN SESSION GOAL:

Awareness of physical disability.

## STANDARD OF LEARNING:

Using adequate resources to resolve situations relating to the physical disability.



## BLOCK OF CONTENTS:

Games and sport activities

SESSION: Sitting volleyball.



## MEETING TIME

Before beginning the session it is important to explain to the group the two main ways to use the hands for displacement:

- a) Resting the palms on the ground with the fingers pointing out or looking forward.
- b) Resting the knuckles of the fingers on the ground. This technique has its own advantage and disadvantage. The disadvantage is that it can be painful if the hand is not used to perform force with that area. The advantage is that the lever movement is a little higher as the distance between the shoulder and the ground is larger. This greater lever causes that we can lift more the bottom from the ground and therefore, performs more efficient displacements.

Consequently, it will be discussed the different ways to move around, according to different player's disabilities or stumps.

- a) Double amputation above the knee. These players present greater freedom of movement by not having legs that may limit certain movements. Players must move shifting their body weight forward, resting their arms in front of it.
- b) Single Amputation above the knee. In this case, the remaining leg can be used to "pull" against the ground, helping the movement of the body. This requires that the assistant hand is the same side as the remaining.
- c) Below knee amputation. In this situation, the technique used is placing both legs in a similar position than the "hurdles jump" position. The displacement technique is similar to what it has been explained in the previous section.



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# Physical Disability

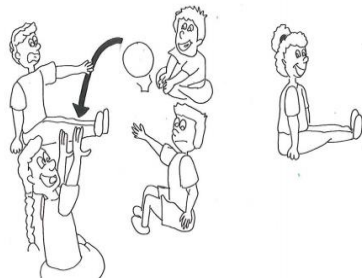


## ACTIVITY 1 "Ten passes"

Each group is subdivided into two small groups. Students should try to make 10 passes among them while the other team tries cut the passes. It is not allowed to return the ball to the same person from whom your received the pass. It is important that students pay attention to the instructions given above about ways of moving to implement them.

Variations: You can add an extra bounce if the activity is difficult for the students.

Material: One ball.



Groups of five

Some aspects of the fingers pass should be explain to the students at that very moment. In a seated position and with a smaller range of mobility, students may have more difficulties in making effective contacts with a full extension of the arms, after contacting with the ball. It is therefore essential to make an active movement and positioning the body properly in order to make contact regarding the trajectory of the ball. Thus, we differentiate three different heights to contact the ball:

- A. Upper zone (above the head);
- B. Lower zone (approximately chest height);
- C. Intermediate zone

It is important to take into account the position of the backward leg if the amputation of the leg is simulated, especially when receiving lateral balls, as it hampers the body fall to the side of contact with the ball.



# Physical Disability



## MAIN PART

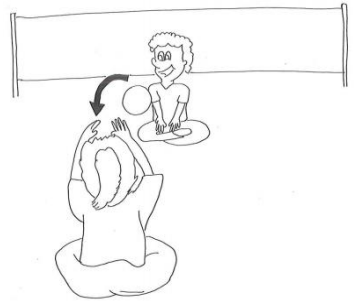
### ACTIVITY 2 "Passes and more passes"

Using a net or a rope as a reference, one student is placed in front of the net (A) and another student on the other side (B), facing his/her teammate. Player B passes the ball to his partner with his hands, and the teammate will return it using a finger pass. As the ball control improves, the passes will become more continuous and faster.

The progression will start first standing, then kneeling and finally both students sitting on the ground. A bounce can be allowed if ball trajectory is not achieved properly.

Variations: Making finger passes to yourself and then return to the teammate.

Material: One volleyball ball per pair.



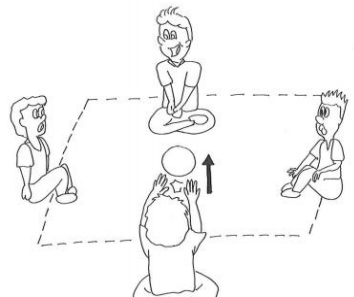
Pairs

### ACTIVITY 3 "Get your place"

Four students will be displaced forming a square, then, students should pass the ball one to each other and after each pass, students must move to the sit of the student who received the pass.

Variations: allow one ball bounce before and / or after the pass.

Material: One ball per group.



Small groups of four

# Physical Disability



We continue describing types and characteristics of the forearm pass. Regarding this type of pass we can differentiate between:

- Pass with the same body orientation: a) Wide pass: completed with a broad movement of the arms; b) Narrow pass: ball is played with less arms mobility and greater movement of the back; and c) wrist movement pass: It is only used in emergencies.
- Lateral pass: it is used when ball comes fast to either side of the body. During initiation phase in this sport, it will be used when students are not able to move quickly to position their body in the direction where they want to send the ball. To perform this pass, it is necessary to orientate the hitting surface (of the arms) to the ball's path trajectory, in order that the ball will not go back or up, but forward.
- Other passes. Here we will find the passes made when ball goes toward the body or when ball is send backwards.



## ACTIVITY 4 "Passes and more passes II"

Player B performs finger passes to player A, who has to return the ball using a finger or forearms pass. Player B will start the activity standing, while player A sitting. We end the activity both of them sitting.

Variations: Doing a self-pass before returning the ball, either using a fingers or forearms pass.

Material: One volleyball balls



Pairs

# Physical Disability



It will be discussed some aspects of the service action, distinguishing between:

- Pushing the ball. It is allowed to perform the service holding the ball with both hands. This option will be used only meanwhile we have not gathered the technical gesture.
- Safety or low hand service. It can be performed allowing a preliminary bounce on the floor, and positioning the body lateral or facing the net. The optimal position is with extended legs within the court area.
- Tennis service. This service seeks to print more power in the action, trying that the ball gets a more downward path than in the low hand service.



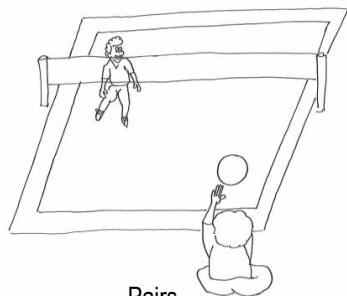
## ACTIVITY 5 "Targeting"

Player A will be seated on the right side of the field behind the service line. Player B will stand up on the other side of the field, behind the net.

Players A will perform several services to familiarize themselves with all types of services, trying to figure it out which one best suits their abilities. Players B will return the balls rolling on the floor.

Variations: Using hoops to improve accuracy.

Material: One ball per pair.



Pairs

# Physical Disability



The last part of this teaching unit will be orientated to some remarks on the attack and the block actions:

**Attack.** We make a distinction between the movement executed only by the wrist and the movement performed by wrist and arm. The use of a specific movement will depend on the body adjustment according to the ball and the more or less strained trajectory put by the setter. It is also possible to perform a lateral or sweep attack, especially, on those occasions when the attack is performed far away from the net. It will be demonstrated how to perform a spike from a fullback position.



**Block.** We distinguish between:

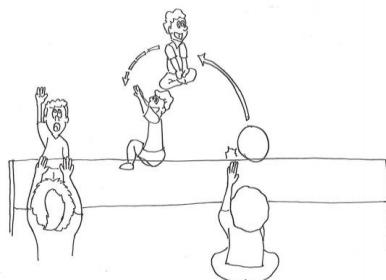
- *Offensive:* It is appropriate for tall players who can drive their arms into the other field;
- *Active:* Arms keep passive and ball is guided with the hands;
- *Passive; Broken:* Extended hands so that the ball is directed backwards, in order to mount a counterattack.
- *Double:* Two players perform the block together.

## ACTIVITY 6 “Offense/Defense circle”

Two groups, one on each side of the net. One player makes a service (next to the net) oriented to a receiver, who pass the ball to a setter, and this to a spiker. On the other side of the course, another player will try to block the ball. The rotation of the four roles (service / defense, receiver / defense, setter, spike/ block) according to the volleyball rules.

Variations: Allow ball retention fingers pass.

Material: One ball for each group.



Big group



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# Physical Disability



## ACTIVITY 7 "Free game"

The remaining time of the session will be free game among students applying all aspects seen throughout the teaching unit. The remaining students assigned to each team, will play the role of referees or perform the services.

Variations: allowing more than three touches by team or a bounce.

Material: One ball per group.



Two groups

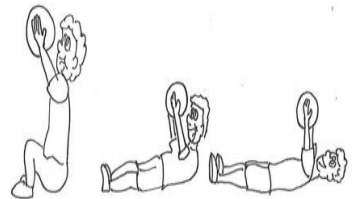
## GOODBYE TIME

## ACTIVITY 8 "Go to sleep!"

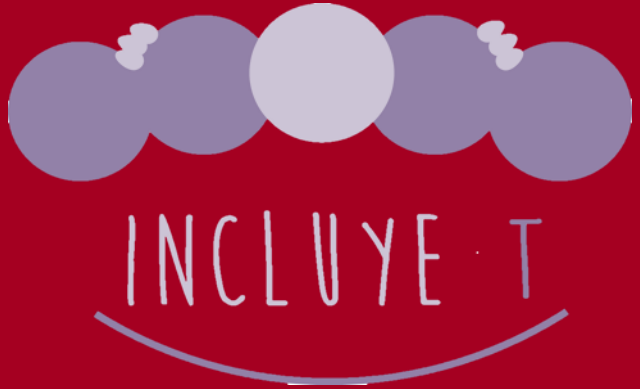
One ball per person, starting from sitting position. Students will hold the a ball in their hands and they will extend their arms as much as possible. After reaching the highest position they will start laying gradually down on the ground until the whole back is touching the floor.

Variations: Lying down performing finger passes.

Material: One ball per student.



Big group



# Activities for Physical Impairment : WHEELCHAIR BASKETBALL



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# Physical Disability

**MAIN SESSION GOAL:**  
Awareness of physical disability.

**STANDARD OF LEARNING:**  
Using adequate resources to resolve situations relating to the physical disability.



**BLOCK OF CONTENTS:**  
Games and sport activities.

**SESSION:** Wheelchair basketball



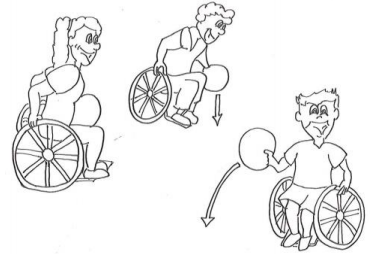
## MEETING TIME

### ACTIVITY 1 "Making contact"

Students will move freely through the space with 1 ball per student in a wheelchair. They must make a bounce of the ball every two pushes of the wheelchair. The partner without a ball will accompany him/her to help with possible losses of control of the ball. At the teacher's order, the roles will change.

Variations: Alternate for every two pulses, one pass, two pulses, a bounce.

Material: One ball per pair, wheelchair per couple.



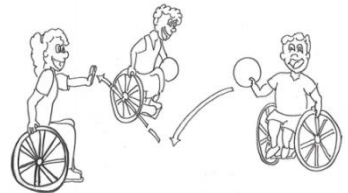
Pairs

### ACTIVITY 2 "Pass me!"

We will perform the same dynamics as the previous exercise, but when they meet a partner without a ball they will pass him/her the ball. First with chest pass, then bouncing, and finally above the head.

Variations: passing the ball in the way you prefer but without telling the partner how it is going to be.

Material: One ball per pair, one chair per pair.



Pairs



# Physical Disability

## MAIN PART

### ACTIVITY 3 "Pick up the ball"

Through guided discovery it will be explained how to pick up a ball from the ground taking advantage of the inertia that is carried with the wheelchair. Students will practice this ability, varying the initial conditions of the ball (static, dynamic, etc.) and the characteristics of the it (different diameters, weights and textures).

Variations: Use balls of different sizes.

Material: One ball per pair, one chair per pair.



Pairs

### ACTIVITY 4 "Lay-ups"

We will organize two rows in each basket, one with ball (the students in a wheelchair) and another without ball (students without the chair). They will get close to the basket following the rules of bounces and propulsions, and once they throw to score, they come back again to their row with the ball that their partner has rebounded . After a few repetitions, change roles, as well as come closer to the basket on the opposite side.

Variations: Throw the ball as if it was a shot to basket of a zone more distant and not a overhand lay-up shot from under the basket.

Material: One ball per pair, one chair per pair.



Pairs

# Physical Disability

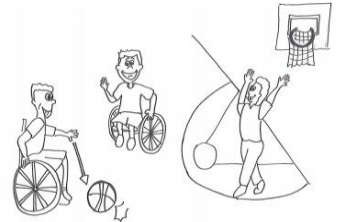


## ACTIVITY 5 "Let's attack!"

Working in the key. Two chairs will do offensive work while the defender must remain still trying to cover the basket. Subsequently the defender will block one of the players in a chair but can only defend the one that he/she decides at first.

Variations: Add a defense in active area to recreate a more real situation. Students should change the roles periodically.

Material: Wheelchairs and balls.



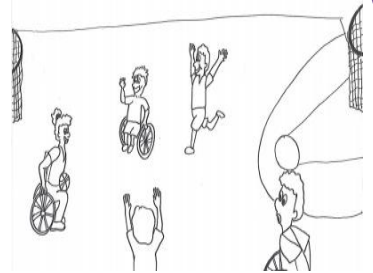
Groups of three / Big group

## ACTIVITY 6 "Inclusive game"

Through guided practice, students will play a basketball game where they will be setting standards by themselves during the development of the game so that all players can participate in the same conditions to achieve success.

Variations: Make sure that enough variations and rules are made so the game is developed smoothly.

Material: One ball and chairs.



Two teams

# Physical Disability

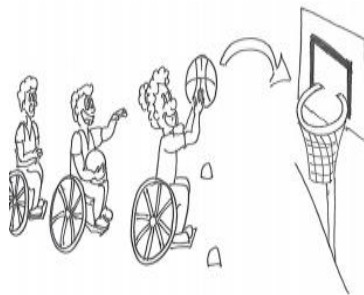
## GOODBYE TIME

### ACTIVITY 7 "K.O."

In each basket, students will be placed in a row near the free throw line and only the first two players having a ball. The first of them will throw to basket and the second one will try to score before the first one obtains so to eliminate him/her. When the first one scores, he/she will pass the ball to the third of the row and come back to the end of the row, and so on.

Variations: Change the distance and throwing angle, throwing hand.

Material: Two balls for each basket and cones to mark the launching line.



One group per basket



# Activities for Physical Impairment : FOOTBALL WITH CRUTCHES



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# Physical Disability

**MAIN SESSION GOAL:**  
Awareness of physical disability.

**STANDARD OF LEARNING:**  
Using adequate resources to resolve situations relating to the physical disability.



**BLOCK OF CONTENTS:**  
Games and sport activities.

**SESSION:** Football for amputees



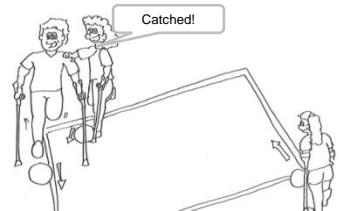
## MEETING TIME

### ACTIVITY 1 "Pacman"

Students will move over the lines of the field. One or two of them will be in charge of trying to catch the others, and once they get it they will pass their role to their partner.

Variations: Move backwards.

Material: Soccer ball, crutches.



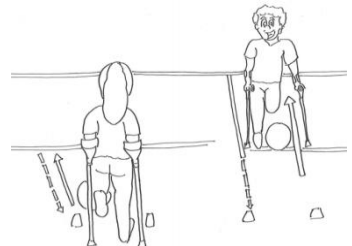
Big group

### ACTIVITY 2 "Lines"

The students will go from their starting point to the first of the marked lines leading the ball. Once they touch it, they will return to the initial one and then go to the second marked line and so on.

Variations: Add cones so that the circuit has obstacles, make it in teams.

Material: Cones, one ball per person, one pair of crutches per person.



Individual

# Physical Disability

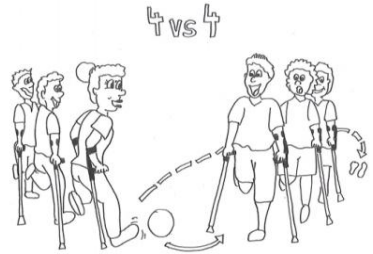
## MAIN PART

### ACTIVITY 3 “Pases in pairs”

Students will be divided in teams of 8, in two rows of 4 facing each other. The one who is placed first in a row, will pass the ball to the first in the row on the other side and will later be placed in the last place of the row where he made the pass.

Variations: Alternating kicking with the inner and the outer of the foot.

Material: Crutches and one ball per group.



Eight students per group

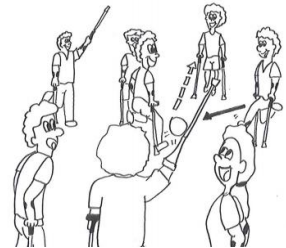


### ACTIVITY 4 “The star”

The group of 8 will be placed in a circle with one person in the middle. The student of the circle makes the pass to the one in the center, and then he will take his/her place, making all of them the exercise dynamically.

Variations: To the teacher's signal, change the direction of the passes or, make some twist, jump, etc.

Material: One ball per group and crutches.



Groups of eight

# Physical Disability

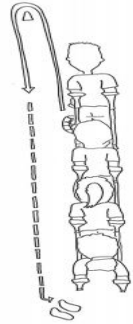
## ACTIVITY 5 "Relays"

In groups of four students, the students must lead the ball in a straight direction for 15 m, then come back to the starting point so the next partner can repeat the same action. All the members of the group will have to execute the circuit once. The one who finishes the exercise first wins.

Variations: Performing the circuit in zig-zag.

Material: Crutches and a ball per group.

Groups of four

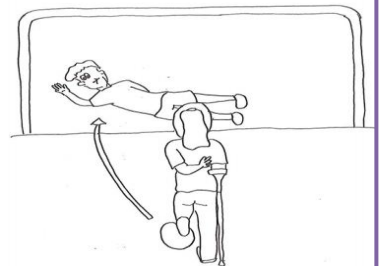


## ACTIVITY 6 "There you go"

The players will kick to the goal. They will simulate an amputation of the upper and lower body, as well as the goalkeeper will simulate the amputation but just in the upper body. Once all have been released, the goalkeeper will be changed by another student. Everyone must experience through this position.

Variations: Kick in movement and with a defense as an obstacle.

Material: Balls, goals, crutches.



Two grupos

# Physical Disability

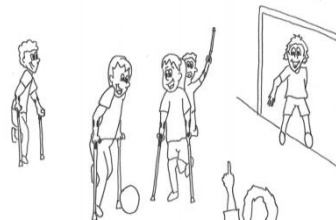


## ACTIVITY 7 "Real game"

In groups of 7 students, one team will face another one. No strict rule will be applied, players will simply have to move on one leg, hit on one leg and, in the case of goalkeepers, they will have to stop the ball with one hand and help themselves with the rest of the body.

Variations: Changing the total number of students who can touch the ball before kicking to score).

Material: Ball and crutches.



Groups of seven

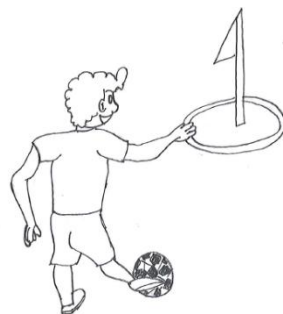
## GOODBYE TIME

## ACTIVITY 8 "Footgolf"

We will establish as many groups as stages. The stage will be marked with hoops or cones, and will be the final goal where students must score the ball with the least number of kicks. Within each group students will turn to perform the activity, and will write down how many kicks they have needed.

Variations: Vary the size of the ball, vary the distance or position of the holes.

Material: Cones, hoops, balls.



Big group





# Activities for Physical Impairment : Para-ATHLETICS



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# Physical Disability

## MAIN SESSION GOAL:

Awareness of physical disability.

## STANDARD OF LEARNING:

Using adequate resources to resolve situations relating to the physical disability.



## BLOCK OF CONTENTS:

Games and sport activities.

SESSION: Para-Athletics



## MEETING TIME

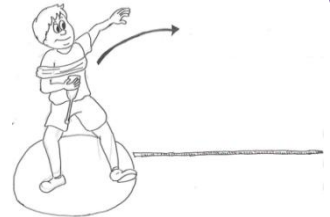
This session is proposed through a circuit structure, where the students will be set in groups of 3 people and will go through the different staffs or tasks related to adapted athletics. One student will assume the role of performer, another the one of scorer and another will assist in the work of collection and delivery of material, to streamline the practice, facilitating the transit from one stage to another.

### ACTIVITY 1 “Club throwing”

Throwing the Club\* with a spherical grip. The mobility of the arm should be limited, achieving this by tying the arm to the torso with a rope. The throw will be made with a flexo-extension movement of the elbow. The launch will be done within a launch vector.

Variations: Throw with the non-dominant hand.

Material: One club, bottle or rhythm mace, one string per student and one tape measure.



Pairs/Small groups

\* The Club is a piece of wood easy-to-grasp shape to make throwing more successful, used by athletes with severe disability (see infography of Parathletics).

\*\*The Club can be adapted by using a heavy plastic bottle.



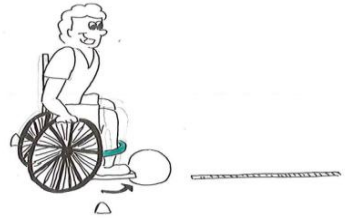
# Physical Disability

## MAIN PART

### ACTIVITY 2 “Medicine ball throwing”

Make three throws of a medicine ball, pushing it with one foot, in a wheelchair or bench. The student will sit down and will limit the extension of the leg by tying a rubber band that offers resistance.

Material: Medicine ball, wheelchair, rubber band and one measuring tape.

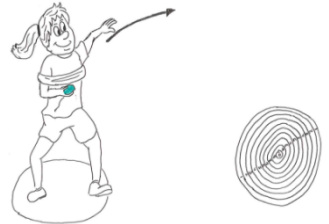


Pairs/ Small groups

### ACTIVITY 3 “The border line”

Make six throwings to a target placed on the ground at 5 m. The score of the concentric circle will be awarded where a greater proportion of the sand bag has fallen. The way of launching will be limited as the one indicated for the club throwing .

Material: One sand bag, one string, one measuring tape



Two teams per field

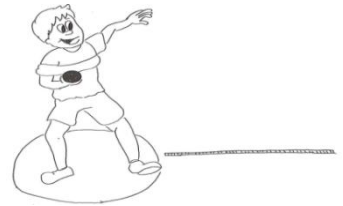
# Physical Disability



## ACTIVITY 4 "Javelin ball throwing"

Throw the Javelin\* three times, limiting the way to do it as in the club throwing. The launch will be done within a launch vector.

Material: One javelin ball , one measuring tape



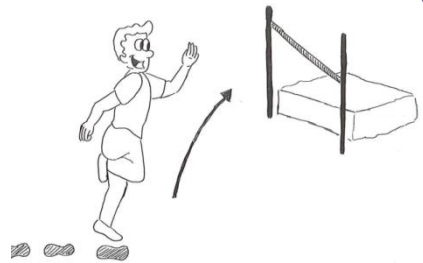
Two Teams per field facing each other

\*\*It can be adapted by using a ball and a plastic grip

## ACTIVITY 5 "High jump (amputees)"

They will perform jumps with support of a single foot (simulating a simple femoral amputation), trying to jump a batten that is in front of a mat. The height jump will be increased in intervals of 10 cm, starting from a height chosen by the student. Each student will have a total of five jumps, trying to reach the maximum height possible.

Material: One Altimeter, one mattress.



Two Teams per field facing each other

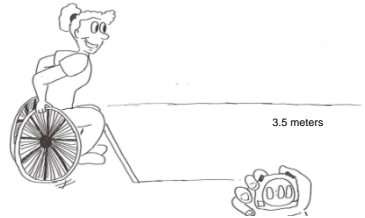
# Physical Disability



## ACTIVITY 6 "Sprint in wheelchair (spinal cord injury)"

A student will sit in a wheelchair and, at the signal of the partner, who has the stopwatch, must complete a distance of 35 m in the shorter time he/she can.

Material: One chronometer, one wheelchair.



Two Teams per field facing

## GOODBYE TIME

## ACTIVITY 7 "Stretching in pairs"

In pairs, a student should think about the best way for his / her partner to stretch according to their abilities and the type of exercise performed in class.

The teacher will guide them during the performance of the exercises, as well as the length of the breaks, and to follow a logical order (top to bottom or bottom to top).

Variations: Performance in groups of four.



Pairs



# Activities for Physical Impairment: BOCCIA



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# Physical Disability

## MAIN SESSION GOAL:

Awareness of physical disability.

## STANDARD OF LEARNING:

Using adequate resources to resolve situations relating to the physical disability.



## BLOCK OF CONTENTS:

Games and sport activities.

SESSION: Boccia



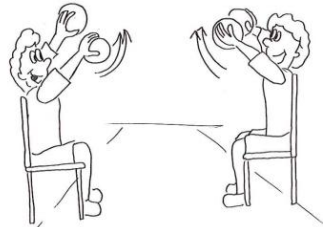
## MEETING TIME

### ACTIVITY 1 "Copy me"

In pairs, with a ball in each hand, a student will perform a serie of movements with the upper limbs and the partner should imitate him as much as possible. They should mobilize their joints in the maximum range of motion.

Variations: Make a small airdrop and catch it.

Material: Boccia balls or similar, strings.



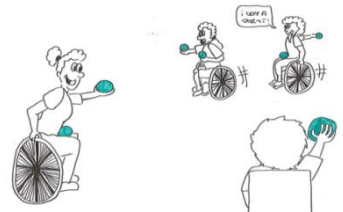
Pairs

### ACTIVITY 2 "Hot balls"

Students will move around the field with a ball in each hand and trying to touch with them as many of their classmates as possible. When someone touches them, they must make three air launches with each hand before they can continue moving.

Variations: Swap balls with the classmate when caught.

Material: Boccia balls or similar, strings.



Big group

# Physical Disability

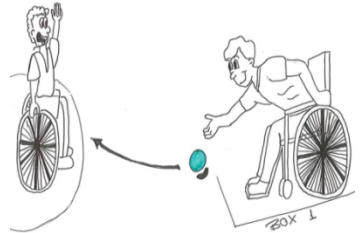
## MAIN PART

### ACTIVITY 3 "The post"

A student is placed anywhere within the game court and the one in the Box must throw and leave the ball as close to his/her partner as possible. They should try to keep the ball the closest to their feet as they can, but trying not to exceed their position.

Variations: Introducing the balls into rings of different sizes.

Material: Boccia balls or similar.



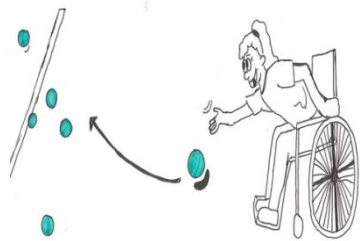
Pairs

### ACTIVITY 4 "The border line"

Each player, with the number of balls available and inside the box with his wheelchair, should try to leave the largest number of balls as close to the bottom line as possible, but without overpassing it. It is about leaving the maximum number of balls of one color as close to the bottom line until the first one of the opposite color.

Variations: Use the lateral lines as reference where to throw.

Material: Boccia balls or similar.



Two teams per court



# Physical Disability

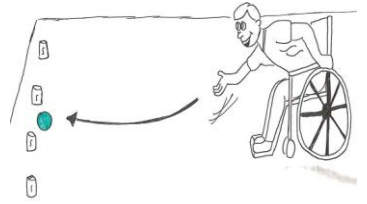


## ACTIVITY 5 "Don't fall down"

Cans or tetrabrik are placed across the width of each field. The objective is to slip the balls through the cans/tetrabriks without touching them. It will count balls that have managed to move from one field to another without touching any can.

Variaciones: Modifying the cans' score.

Material: Bolas de Boccia o similar, latas o tetrabrik.



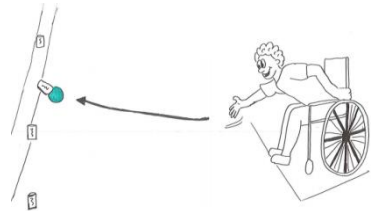
Two teams per court facing each other

## ACTIVITY 6 "Falling down"

The cans/tetrabriks are placed across the width of each court. Now, the objective is to knock down the cans using the boccia balls. Students can knock the cans from other fields.

Variations: Different types of can have different score.

Material: Boccia balls or similar, cans or milk boxes.



Two Teams per court facing each other

# Physical Disability

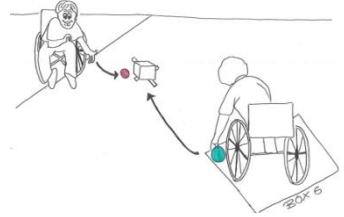


## ACTIVITY 7 "The bucket"

A plastic bucket will be placed on the "X" of the court, and a member of each team will make alternate launches to try to bring the bucket closer to the throwing line of the opposing team (front of the box and bottom line respectively).

Variations: Try to score inside the bucket.

Material: Boccia balls or similar 5 buckets or board boxes.



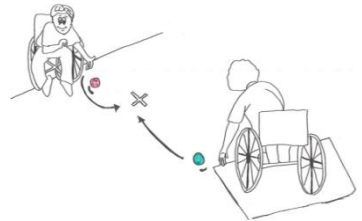
Two Teams per court facing each other

## ACTIVITY 8 "Crash!"

Two students at each end of the court will coordinate to throw each other at the same time, trying to get their balls to collide and be as close to the central X.

Variations: The balls must collide in different areas of the field nearest or far, not just in the "X".

Material: Boccia balls or similar.



Two Teams per court facing each other

# Physical Disability

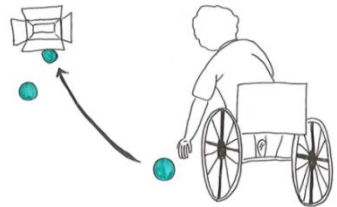


## ACTIVITY 9 “The magic box”

Each team has a board box, placed in front of them in the middle of the field.

The box is set on one of its sides, so that the opening side is facing the players, who should try to leave the largest number of balls inside the box. In case the ball enters and leaves the box, it will not be counted.

Material: Boccia balls or similar, cardboard boxes.



Two teams per court facing each other

## ACTIVITY 10 “The traffic light”

We put three rings consecutively, separated about 50 cm from each other. The first of the rings adds 1 point, the second 2 points and the third 3 points. The game consists in leaving the largest number of balls inside the hoops, getting the highest score as possible.

Material: Boccia balls or similar, three flat rings per field.



Two teams per court facing each other

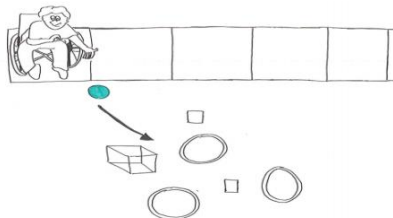
# Physical Disability



## ACTIVITY 11 "Which angle is better?"

Everyone placed on one side of the field so that the objective is to place the balls inside the hoops by avoiding the obstacles found on the court.

Material: Boccia balls or similar, flat hoops.



Two teams per court facing each other

After performing these tasks, we will proceed to explain the dynamics of the game:

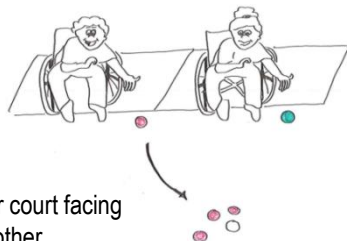
- A) Launch of the first ball. Corresponds to the same player who threw the white ball.
- B) Launch of the first opposing ball.
- C) Sequence of throws, where the throwing team is the one further to the target ball.
- D) Situation of "equidistance" (two balls of different color at the same distance from the white): starts throwing the last one that did it and alternates until that situation is broken.

The basic rules for the game are: i) not to exceed the line of the white ball; ii) seek punctuation, and obstruct the throwing angle of the opponent; iii) maintain a good launch angle; iv) possibility of making "supports".

## ACTIVITY 12 "Cover the angle"

The white ball is placed in any area of the court, and a player with red balls must throw trying to cover the front throwing angle of his /her opponent. The order of the throwings will be alternated.

Material: One set of Boccia balls per field.



Two teams per court facing each other

# Physical Disability

After completing a series of this exercise, we will explain how to score in the game after the completion of each part. It will always be X-0 or 0-X scores, except in a situation of equidistance (1-1 or, at most, 2-2). The result of a game is the sum of the corresponding partial scores. In the event of a tie, a tie-break will be played, in which the white ball is placed in the "X" and a draw is made to decide who starts the game in that part.

Next, we will explain the situations that lead to the withdrawal of the throwing ball, which entails the loss of the ball thrown by an infraction committed during its launch, and must be stopped before it touches any of the balls already thrown, if there were any. The infractions that provoke this situation are: a) to throw before the referee indicates whose color turn it is; or b) throw the ball on the opponent's turn, unless the referee has made a mistake. To the above mentioned situations, other infractions must be added that, besides the loss of the thrown ball, entails the granting of two additional balls to the opponent competitor (penalty), that would be thrown at the end of the partial.

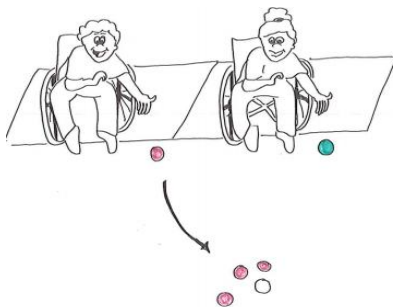
The actions that cause it are: a) throw a ball while the assistant, the player or any material used touches the lines of the field, or part of the pitch not considered part of the player's throwing box; B) not move an auxiliary device (chute or ramp) clearly to the center of the launching box, breaking the horizontal and vertical planes of the previous launch; C) releasing the ball when the auxiliary device is overtaking the front throwing line; D) releasing the ball without having at least one buttock in contact with the wheelchair; E) releasing the ball when he/she is touching a part of the court outside the player's throwing box; Or f) throwing the ball when the auxiliary (BC3) is not facing the field with the back.

## GOODBYE TIME

### ACTIVITY 12 "Main game"

Game simulations, in which a student in each field will play the role of main referee. The teacher will move around the courts giving feedback about the game situations that are going on (e.g.: the picture shows a situation in which it is important for the blue team to send the white ball out of the court lines so it is set back again in the "X").

Material: One set of Boccia balls, referee material.



Two teams per court facing each other



# Activities for: Different Abilities



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# Different Abilities



## MAIN SESSION GOAL:

Raising awareness towards different (dis)abilities.

## STANDARD OF LEARNING:

Use adequate recourses to resolve issues relating to the disability.



## BLOCK OF CONTENTS:

Games and different physical activities.

SESSION: leisure and recreation, games, entertainment.



## MEETING TIME

### ACTIVITY 1 "Presentation I"

All students are sitting in a circle on the floor. Everybody has to introduce him/herself and the impairment which they will simulate during this session.



Big group

### ACTIVITY 2 "Presentation II"

Think about a movement that consists of 2 syllables, that everybody can do in the same rhythm at the same time (possibly in their own unique way).

The rhythm starts with clapping. Every person has to think of a different movement. F.e. Jum-ping, tur-ning, ...the first rhythm, the person shows it, then in the right timing everybody does it together. Then it's the next person's turn.

Variations: A quick round where everybody only does his/her own action without pausing the rhythm. Everybody has to remember what his left partner did, and has to do it instead of him/her in the next round.



Big group



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# Different Abilities



## MAIN PART

### ACTIVITY 3 "The chain"

All students are arranged in a circle, holding each others hands. There is a hoop which they try to get around, from one person to the next, in the circle, without letting each others hands go. When the circle arrives at the person who is in the wheelchair, the teacher should explain, that the others don't need to lift up the wheelchair or the person in the wheelchair, but that the person can do it him/herself without help.

Variations: Two or three hoops at a time, trying to catch one hoop with the other.

Material: Hoops.



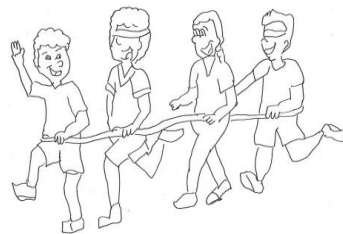
Big group

### ACTIVITY 4 "All in order"

All students get a long enough rope, they should hold on to. The aim of this game is it, that all students order/arrange themselves according to different tasks along the rope, without ever letting go of it.. Tasks could be f.e. that they have to arrange themselves in an alphabetical line according to their first names, birthday month, shoe size, age, size... Sensibilisation glasses for different types of visual impairment can be used, or blindfolds for simulating blindness, ropes for simulating physical disabilities... nobody is allowed to speak for hearing impairment...

Variations: Introducing an hearing impairment or deafness in this game. Nobody would be allowed to speak. Furthermore we can combine it with glasses for visual impairment, or ropes for simulating a physical disability in the same game, so that all students have to cooperate and work together to arrange themselves in the right order. It can also be played with stepping on a line on the floor instead of holding a rope.

Material: Long rope, blindfolds, simulation glasses for visual impairment, small ropes, wheelchair (s).



Big group



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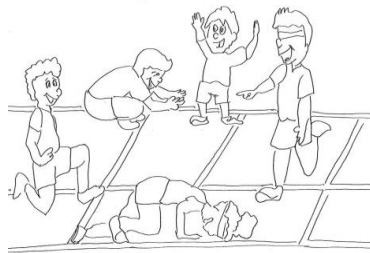
# Different Abilities



## ACTIVITY 5 "How many supports?"

In groups (minimum of five) the students have to try to keep the contact with the floor with exactly the number of feet, hands, heads, knees (...) the teacher announces. For example: 5 feet x 2 hands x 3 heads (who can be the supporting base of the whole team) can touch the floor. They have to try to come up with a solution as fast as possible. All members have to always participate in each new task the teacher announces. All students with their different kinds of disabilities can participate; the requirements and instructions have to be adapted to the types of disabilities.

Variacion: adding other equipments.



Groups of 5 – 10 people

## ACTIVITY 6 "Frisbee"

This activity is played in couples, where they throw a frisbee. At first the distance between the couple is not too far, but with time and practice the players can extend the gap between them.

Variations: Practice different ways of throwing; use different types of frisbees.

Material: One frisbee/couple



Pairs

# Different Abilities

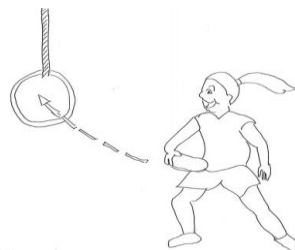


## ACTIVITY 7 "Frisbee golf"

The aim of this game is to throw the frisbee in a hoop or box with as little as possible throws. The students follow a order of throws and take notes of their points in each station.

Variations: Modify distances, the height of the objects, put obstacles in the line of the throw, individual or team games...

Material: Frisbees, hoops, boxes, pens, paper..



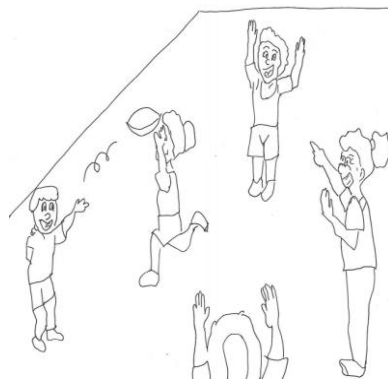
Individual

## ACTIVITY 8 "Ultimate frisbee"

Two teams will face each other in a marked field. The team which is in possession of the frisbee, is the "attacker" and tries to score by passing the frisbee successively between the team members while moving forward into the opponent teams zone. A point is scored when one team member of the attacking team catches the frisbee in the "end/goal zone" of the opponent team ( the dimensions of this zone are the width of the field x 3 m to the back). The aim of the defending team is it to intercept the passes of the attacking team and turn the move around, so that they start an attack and try to score. It is not allowed to move while holding the frisbee in the hand, a player can hold it for a maximum of 10 seconds in his/her hand without anybody is allowed to steal it. If the disc falls on the floor, the other team gets it.

Variations: A player can move two steps with the frisbee in his/her hand or two pushes with a wheelchair (this doesn't count for walking into the opponent teams end zone).

Material: Frisbees, hoops, cones.



Two Groups

## GOODBYE TIME

### ACTIVITY 9 "Creating words with our bodies!"

We are dividing the class in groups of six students each, every small group has to come up with a word with 6 letters. Then they have to present the word; every student is forming a letter with his/her body. The other groups have to try and guess what word it is they are presenting.

Variations: all students have to form a phrase together.



Groups of six

### ACTIVITY 10 "Pass it on!"

To play the game students should stand or sit in a circle. One person, standing in the middle of the circle, begins the game by winking at the person who is going to pass the message. This student starts saying out aloud "I am sending a message to ...", having in mind who is the classmate who has to receive the message. To send the message the student shake his/her hands to the classmate who is holding his/her hands next to him/her. This shaking hand will be repeated by all the students one by one until the message reaches receiver. The player standing in the middle has to try to intercept the message.

Variations: Taken from the shoulders the message is passed by touching the shoulder of the partner



Big group

# Different Abilities



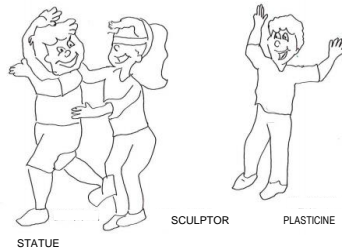
## ACTIVITY 11 "The sculptor"

In groups of three, every student has a specific role:

- The "statue", who chooses a position and stays in the very same.
- The "sculptor", who with his/her eyes closed, he/she has to touch the statue to "see/feel" the position and then recreate the very same statue from the 3rd person in the team.
- The "plasticine". The task of this student is to be the material which is being transformed into a statue by the sculptor.

Variation: the very same roles, but besides the tactile version of the game, the sculptor is only allowed to verbally recreate the statue.

Material: One blindfold per group.



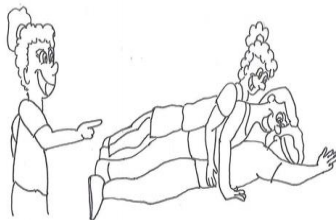
Groups of three

## ACTIVITY 12 "Who am I?"

One student lies with his face down on his/her belly on the floor. The rest of the group chooses – in complete silence – one person, which lays down on top of the person on the floor. Through the physical contact and the characteristics which can be subtracted from one's back, the person on the floor has to guess who the person on his/her back is. If he/she was correct, the game continues; now the person "from the back" has to be on the floor, guessing. If the guess was wrong however, a third person will lay on top and the second has to try and guess...as long as someone guesses right (or it is obviously too heavy for the person(s) below).

Variations: The person wearing the blindfold has to guess the other person by writing the name with a finger on his/her back.

Material: Blindfolds, cones, ropes, chalk, a bench,



Groups of ten



INCLUYE T

# Infographics Paralympic Sports



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# Athletics

## Visual Impairment and Intellectual Disability



<http://pablocanterolopez.com>

Athletics is the largest discipline in the Paralympic program and includes several sports: track events, with distances between 100 and 10,000 meters; contests, with jumping and throwing; and the marathon, held in the streets.es.

*A good relationship, clear communication, coordination and understanding between the guide and athlete is crucial for success.*

Athletes who are completely blind require a guide for running races. For the jumping competitions, the guide claps the pacing for the inrun and indicates the exact moment when the athlete must jump.



### T/F 11-13 (Visual Impairment) | T/F20 (Intellectual Disability)

Athletes with visual impairment are grouped in three sport classes according to the degree of vision (visual acuity and field). Athletes belong to T/F11 run with a guide and use a blindfold to compete. In the T/F12 class, athletes can choose to run with or without a guide. Athletes belong to T/F13 have better vision and they have no need to have a guide.

Athletes with intellectual disabilities must perform a series of tests to prove that they have a limitation in performing running, jumping or throw.

### Do you know....? David Casinos (Moncada, Valencia) – F11



- Bronze medal at the Rio 2016 Paralympics Games.
- Gold medal at the World Championships (Doha, 2015).
- Gold medal at the World Championship (Lyon, 2013).
- Gold medal in weight lifting and / or disk at the Sydney 2000, Athens 2004, Beijing 2008 and London 2012 Paralympic Games.
- Gold medal at the European Championship (Swansea, 2014).
- Spanish National Sports Award in the category "Olympia" (2014).



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# Athletics

## Hypertonia, Ataxia and Athetosis



<http://www.vivirextremadur.es/>

Athletes with problems of coordination, balance and range of motion can participate in field events (F) and track (T); in a wheelchair or sitting, and standing.

*Did you know, that there exists a special material called "club" for throwing? Athletes use it who are more affected in their motor control.*



In the 30's classes compete athletes with ataxia (coordination problems), athetosis (involuntary movements) and hypertonia (limitation on coordination and range of motion for muscle co-contractions) are participating.



### T/F 31-34 (wheelchair) | T/F 35-38 (standing)

The alterations affect the ability to control the movement of the legs, trunk, arms and hands. The lower the number of the classification, the greater is the activity limitation regarding running, throwing or jumping.

Athletes of the T31 class propel the wheelchair with the feet and move backwards, and some wheelchair classes throw kind of a wooden pins (similar looking to bowling pins) called bolo wood. In Spain for example, there is also bean bag throw (height and distance) for those athletes who do not have a good grip capacity.

### Do you know...? Lorenzo Albaladejo (Murcia) – T38



- 6th and 7th place at the London in 2012 Paralympic Games.
- Silver medal at the European Games (Swansea, 2014).
- Silver medal at the European Games (The Netherlands, 2014).
- Spanish recordholder in 100, 200 and 400 meters events.



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# Athletics

## Physical Disability I



<http://www.deporteparalimpi.co.ve/>

Athletics is the largest discipline in the Paralympic program and includes several sports: track events with distances between 100 and 10,000 meters; contests, with jumping and throwing; and the marathon.



Besides the use of prostheses for racing, other adaptations are used to support the athletes, for example a special plugs for a support on the output. Some athletes in this category may choose to compete standing with the use of prostheses or do sitting in another class.

*Did you know that the level of involvement of arm length defines in which classification athletes can participate in short and long distance?*



### T/F 40-47

These classes are for athletes with short stature (T / F 40-41) and with problems in their limbs due to amputation, lack of range of motion, lack of strength or leg length difference. Athletes with classes T / F 42-44 have limited function in their legs, while T / F 45-47 classes have limited function in their arms.

### Do you know..?

### Antonio Andújar (Valencia) – T47



- 8th place at the London in 2012 Paralympic Games.
- 6th at the Lyon 2013 World championship.
- Silver medal at the European Championship (2012).
- 6th place at the European Championship (Swansea, 2014).
- Gold medal at the Spanish National Championship (2014).



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# Athletismo

## Physical Disability II



<http://www.gettyimages.com>

T51-T54 are the categories for wheelchair racing and F51-F57 throwing events where athletes compete seated. For the races, special racing wheelchairs are used and for the throws, the athletes can use straps and a bar for holding onto when sitting on the throwing bench (that depends on the category).

*Do you know that racing wheelchairs can cost up to 6000€, while the throwing frames can be self-made?*



The throwing events consist of throwing discus, javelin and shot put. The wheelchair races are held over distances from 100 m to 10000 m, as well as Marathon.



### Classes T51-54 (Races) | F51-57 (Throws)

Classes T51-T54 athletes with deficiencies in their limbs, leg length, poor muscle power or loss of range of joint movement compete in wheelchairs.

Classes F51-F57 are athletes who compete in throwing, from a sitting position. They compete with limb deficiencies, weak muscle power, deficiencies in leg length or loss of range of motion in the joint(s).

*Do you know....?*

**Santiago Sanz (Albatera, Alicante) – T52**



<http://www.deporlovers.com/>

- Silver medal at the Sidney in 2000 Paralympic Games.
- Silver medal and Bronze medal at the Athens 2004 Paralympic Games.
- Gold medal at the European Championship (Helsinki, 2005).
- Gold medal at the World Championship (Assen, 2006).
- Since 2009 he focussed on 10000m and marathons and continues to collect titles and triumphes.



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# Wheelchair Basketball



<http://www.paraworldb.com/>

Wheelchair basketball is played on the same court, with the same ball and basket heights as in abled-body basketball. It is played by players with physical disability, who are classified with points according to a functional classification assessment.

*Did you know that it is possible to encourage the participation of women in teams giving a bonus to the total team score on the court?*

Variations in the rules:

- A maximum of 2 pushes without dribbling the ball ("steps")
- Only the wheels are allowed to touch the track
- No double dribble (a bounce with two hands)
- At the moment of the launch, player's buttocks must be in contact with the chair
- Only the front wheels are allowed to touch the free throw line and the 6.75 m point (triple).

## The Team

Basketball players present physical disabilities. Players are assigned a point, between 1.0 and 4.5 points, according to their functional profile. Each team is limited to fielding a team with a total of 14 points.



*¿Do you know....?* **Pablo Zarzuela**



- Silver medal at the Rio 2016 Paralympic Games.
- 5th European Championship 2015 (Worcester, Reino Unido)
- 4th World Championship 2014 (Incheon, South Korea)
- 3rd European Championship 2013 (Frankfurt, Germany)
- Participation at the National League Championship (2012-2015)
- Participation the Kings Cup Championship (2012-2015)
- Runner-up of the European Championships (2014-2015)
- Bronze medal at the European Championship (2013)





# Boccia



<http://www.paralimpico.es>

Boccia is a sport that is practiced by people in wheelchairs who have severe physical disabilities which affect on their motor control and the strength of their throws. One game has 6 red balls, 6 blue balls and one white ball (the target).

*Did you know that the Boccia is a sport that improves the quality of life of people with disabilities and it is a sport where men and women compete together?*



You can play Boccia individually, in pairs or in teams of three players. The aim is to throw your balls (red or blue) as close to white ball as possible, while trying to prevent that the rivals score. Each game consists of several rounds of throws; the one who approximates his/her/their balls closest to the target ball gets the most points and wins.



## BC1

Athletes who are throwing with hands or feet and need an assistant.

## BC2

Players who throw with hands. No need for an assistant.

## BC3

Use a ramp to release the ball. They might use a head or mouth pointer to push the ball.

## BC4

Athletes with severe physical disability (non-cerebral)

## BC5

More functional athletes (minimal impairments).



<https://boccianews.com/2012/10/12/boccia-sessions-in-durham-uk/>

### Individual

● 3 ● 4

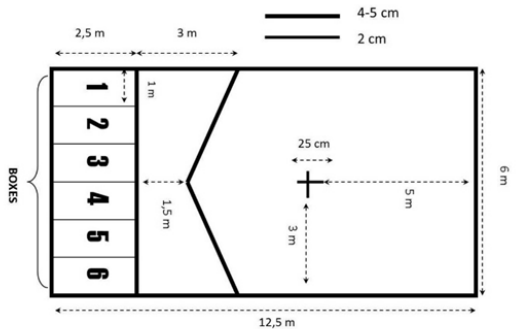
### Pairs

● 2, 4 ● 3, 5

### Teams

● 1, 3, 5

● 2, 4, 6



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# Para-Cycling



<http://www.olympic.com/>

Para-cycling is open for athletes with visual and physical impairments (e.g.: amputations, cerebral palsy, etc). This sport can be practice on tandems, hand-bikes, tricycles and conventional bicycles.

*Did you know that there are 4 types of bicycles to practice this?*

Para-cycling has track and road events and has it has become one of the most popular sports in the Paralympic program.



**B**

<https://www.pinterest.com>

Tandems for athletes with a visual impairment.



**C**

<http://gymheroes.tumblr.com/>

Five categories on conventional bikes for cyclists who have physical disabilities.



**H**

<http://cyclingtips.com/>

Five categories for hand-bike cyclists, who have a paraplegia or an amputations and cannot use their legs.



**T**

<http://thebestmatters.com/>

Two tricycle categories for cyclists with balance problems.

**Do you know....? Maurice Eckhard (Rafelbunyol) – C2**



- Gold medal in individual time-trail racing at the Tour of Spain (2014).
- Bronze Medal in time-trail racing at the London 2012 Paralympic Games.
- Silver medal in time-trail racing at the World Championship (2013).
- Gold medal at the World Championship (2007).



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# Wheelchair Fencing



http://www.paralmpicos.es

Wheelchair fencing is a combat sport, in which two rivals face each other with their weapons. There are three disciplines in Wheelchair Fencing according to three types of sword used – the Foil, the Epee and the Sabre. The sport is based on attack and defense; a fencer records hits by striking the opponent in the valid area.

*Did you know that the wheelchairs are fixed to the floor so that the athlete can hold onto the chair with the arm that is not holding the weapon, facilitating quick and stable movements?*

Wheelchairs are fixed to the floor and the participants wear a breastplate with sensors that detect if the tip of the weapon has had contact. In case of a positive contact, the “attacker” gets a point.



**C** In this category there are the subclasses 1A and 1B. The fencers don't have balance when they are sitting and the hand which holds the weapon is affected as well.



FOIL

**B** The athletes from category 2 have enough balance when sitting in their wheelchair and the arm which holds the weapon functions normally.



EPEE

**A** Here are sportsmen/women from the subclasses 3 and 4, who have good balance in their wheelchairs, with or without help of their legs and the hand which holds the weapon also functions normally.



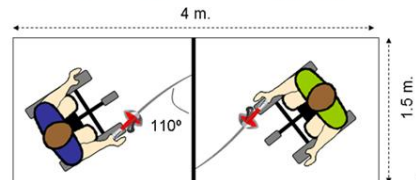
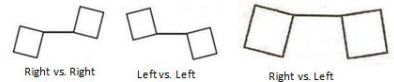
SABRE

## Do you know....? Alex Prior - A



www.dxtadaptado.com

- Gold medal at the World Championship Under-23.
- Spanish Champion:
  - Gold medal in Saber event.
  - Gold medal in Epee event.
  - Silver medal in foil event.



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# Football 5-a-side



<http://www.paralimpo.es/>

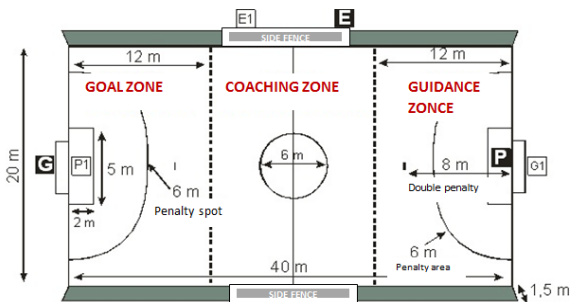
This sport is practiced by athletes with visual impairments belong to the B1, B2 or B3 classes. Each team consists of five players on the field, four with disability and using blindfolders, plus one goalkeeper without disabilities, without blindfold and who is not allowed leave an area of 2x5m.

*Each team is guided by 3 people: the goalkeeper, one trainer on the sideline and one guide behind the goal of the opponent team. These 3 guides have the function to organise, orientate and position their players.*

The field is surrounded by a fence of boards, except behind the goal, to prevent the ball from leaving the field and keep the game flowing. There are no offside rules; the ball makes a noise when it moves. A game consists of two 25 minute halves and one break of 10 minutes.

## B1

Athletes who are classified as B1 class are totally, or almost totally, blind with no, or only, a little perceptiion of light and the inability to see a hand right infront of their face. Although is a well developed sport with solid regulation, there is a need for some adaptations.



## Do you know....?



deportista Federación Española de Fútbol

## Javier Álvaro (Alicant) – B1

- Bronze medal at the World Championship (Tokyo, 2014).
- Bronze Medal at the IBSA World Championship (Seul, 2015).



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UNIVERSITAS Miguel Hernández

# Football 7-a-side



This sport is also known as “CP-Football”, as it is practiced by athletes with cerebral palsy and/or acquired brain injuries. It is an adaptation of the olympic football, with only a few other modifications to the FIFA rules.

*Did you know that there is no offside rule and that the throw-in may be one with one hand only or with tugging the ball on the ground?*



Each team has 14 players but only seven on the field. Matches consist of 2 half's of 30 minutes. The pitch is always with natural or artificial grass, with dimensions not exceeding 75 x 55 m and not less than 70 x 50 m. The goals dimensions are 5 x 2 m.



## FT5

Hypertonia in both legs (diplegia); struggling to run, jump, turn or stop.

## FT6

Balance and coordination problems in all four limbs (athetosis or ataxia); with difficulty of controlling the ball, the speed or shooting.

## FT7

Players with hemiplegia: one side of the body is affected. They have problems with balance, turning and ball handling..

## FT8

Minimum limitations to participate in this sport.

## Do you know....? Jorge Peleteiro (Ibi, Alicante) – FT5



- Bronze medal at the Atlanta 1996 Paralympic Games.
- 6th Place at the Sydney 2002 Paralympics Games.
- 4th place at the World Championship (Brazil, 1998).
- 12th Place at the World Championship (Brazil, 2007)
- 5th Place at the European Championship (England, 1995)
- 11th Place at the European Championship (Scotland, 2010)

twitter.com



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# Goalball

TM

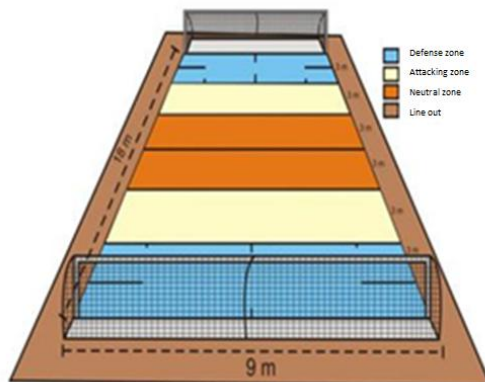


<http://www.iceparadesa.es/>

Goalball is played by athletes with different types of visual impairment (B1, B2 and B3). Each team is formed by three players who play in a field of 18 x 9 m, where the aim is to throw a ball to score in the opposite goal.

*Did you know that in Goalball it is possible to develop the sense of hearing even better? Because the opponent usually tries to throw the ball with the lowest noise possible...*

Players participate with their eyes covered by a blindfold. The equipment consists of a sound ball, goals of 9 x 1.3m, blindfolds, and protections (elbow, knee and chest). Each field has three areas, and the backcourt has markings in relief to orientate athletes when they touch them.



## B1, B2 y B3

Goalball is the only sport where athletes with different visual classification compete together. It is based primarily on the auditory sense, as the athletes attempt to detect the trajectory of the ball in the game. It also requires a good capabilities of orientation in space, as they need to know in which place they are located at all times and to block the ball.



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# PARA-JUDO



<http://www.paralimpos.es/>

In Para-Judo athletes with visually impairments belong to classes B1, B2 or B3 who participate together in an open class, and there is no distinction between people with different degrees of blindness and visual impairment. Competition categories are, as in the Olympic Judo, based on judokas' weight.



The necessary adjustments are: firstly, the use of different textures on the mat to delimit the competition area and, second, start the fight both judokas being in physical contact (grabbing the opponent). Also referee's indications are audible rather than visual. The real fight time are 5 minutes.

*Did you know that a judoka with visual impairment learns techniques based on feelings in their own body, and therefore, they can feel an attack faster than it would a sighted athlete?*



## B1

None or very slight perception of light in both eyes, but no ability to recognize the shape of a hand at any distance or direction.

## B2

Judokas can recognize the shape of a hand, and has a maximum visual acuity of 2/60 (they can see at 2 m what you can usually see at 60m). Also, their visual field must has less than 5 degrees.

## B3

Judokas can recognize the shape of a hand, and their perception ability will be above 2/60, even 6/60. Their visual field varies between > 5 < 20 degrees.

## ¿Do you know....? Mónica Merenciano (Llíria, Valencia)



Esportista Federación Española de Deportes para Ciegos



- Gold medal at the Spanish Championship in 2014.
- 5<sup>th</sup> World Championships in 2014.
- Bronze medal at the European Championship in 2013.
- Gold medal at the Spanish Championship in 2013.
- Bronze medal at the Athens 2004, Beijing 2008 and London 2012 Paralympic Games.
- European Champion in 2011.
- Several medals at the World Cup in 2002, 2003, 2006 and 2011.



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# Para Swimming



<http://www.comiteada.es>  
[ipool.com.es/](http://ipool.com.es/)

Four styles are practiced: free (FR), backstroke (BK), butterfly (FL) and breaststroke (BR). Besides, these four styles are combined in event styles, either individually or relays.



Swimmers get into the water without any technical support, except in the BK style, which allows a specific grip with athlete's mouth if necessary. It is not allowed to swim with any prosthesis or technical assistance.

Blind swimmers are indicated their proximity to the kerb, in order to perform the turn, by hitting in the swimmer's head with a soft stick.

*Did you know that athletes can go from three positions from the starting block: standing on the sill, sitting on the sill or directly from the water?*



**S1-10**

Swimmers with different types and levels of physical disability.

**S11-13**

The S11 class is for swimmers with blindness, and S12-S13 for those with visual impairments.

**S14**

Swimmers with intellectual disabilities.



**¿Do you know....? Ricardo Ten (Valencia) – S4**



- Gold medal at the Atlanta 1996, Sidney 2000 and Beijing 2008 Paralympic Games in 100 m BR event.
- World record in 100 m BR at the Beijing 2008 Paralympic Games.
- Seven times World Champion.
- Several times European Champion.

**Fer**  
 Ferret  
 Esportista  
 Federació Esportiva dels  
 Reptes



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# Para-Canoe



<http://www.marca.com>

It is practiced in flat waters, and there are two types of boats: Kayak (K) and canoes (V). There is one single official event: the 200m, and kayakers compete according to the impairment level and gender.

*Did you know that the Para-Canoe is one of the two newest sports at the Rio 2016 Paralympic Games?*



Main adaptations are focused on the seats that provided divers pelvic, limb amputation or lumbar supports. Also, the used of special gloves, support devices of the paddle or buffer stops that ensure the grip of the paddle.



**KL3** Paddlers can make use of their legs (L), trunk (T) and arms (A), generating power at the helm and in the seat to propel the boat.

**KL2** Paddlers make use of the trunk (T) and arms (A) but they are not able to apply a continuous and controlled force at the helm or in the seat to propel the boat.

**KL1** Paddlers are able to apply force using arms and shoulders (Arms), but they present poor sitting stability.

*¿Do you know....?*

**Javier Reja (Seville) - TA** *Esportista*



- Va'a World Champion in 2014.
- European and Spanish Champion in 2015.
- Several medals in other sports modalities.



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# Para-Equestrian



Riders compete in 11 dressage events, where athletes can choose the movements and music. Coordination, harmony and precision of movements are valued, as well as will, trust and obedience of the horse. Competition is mixed gender and open to athletes with visual and physical disabilities.

*Do you know that some riders are able to give orders to the horse holding the reins with their mouth?*



It is possible to adapt the saddle (supports or cushioning), hands fasteners, reins or stirrups (closed or elastic bands).



## Level I

- They use wheelchair.
- Shortly trunk balance.
- Limitation of arms and legs function.

## Level II

- They use wheelchair.
- Poor trunk balance.
- Good to mild arms function.

## Level III

- Able to walk without supports.
- Moderate disability in both arms and legs, or severe disability in the arms.
- Blindness.

## Level IV

- Disability in one or two extremities.
- Deficiency visual.

## ¿Do you know....? Sonia Villalba - GIII



- World Champion in Dressage and 10th place in individual event in 2013.
- Spanish Champion in 2015.



# Para-Triathlon



<http://www.triatlonmadrid.com>

The Para-Triathlon combines, like triathlon, consists of 750 m swimming, 20 km cycling and 5 km running stages.



During transitions athletes can receive support with their prosthesis (removing and replacing) or any other apparatus required (e.g. wheelchairs), but also removing the wetsuit/clothing or repairing punctures.

*Did you know that Para-Triathlon debuted, for first time, at the Rio 2016 Paralympic Games.*

## PT1 (Wheelchair)

## PT2-4 (Foot)

## PT5

Athletes with paraplegia, quadriplegia, polio, double leg amputation or other disability who cannot use their lower limbs. They must use handcycle and wheelchair for the running segment.

Athletes with physical disability or cerebral palsy based on their functional ability, from the most (PT2) to mild (PT4) impaired. They can run using prosthesis or crutches, and they use a conventional bicycle or tricycle with adaptations.

Athletes with total or partial visual impairment. A guide from the same gender is mandatory throughout the race. Must ride a tandem during the bike segment

*¿Do you know....?*

**Susana Rodríguez (Vigo) – PT5**

Athlete  ADOP  
Adaptación al Deporte  
Objetivo  
Puntuable



- Gold Medal at the World Paratriathlon Event (Yokohama, 2014 and Madrid, 2013).
- Gold Medal at the Duathlon World Championship (Pontevedra, 2014).
- Gold Medal in the European World championship 2014 (Kitzbuhel, Austria).
- Silver Medal in the Aquathlon World Championships (Edmonton, 2014 and London, 2013)
- Gold Medal in the Duathlon Spanish Championship in 2013 and 2014



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# Para Powerlifting



http://www.adop.org.es/programas/par

It is a strength sport consisting to lift the greatest weight on bench press.

*Did you know that lifters compete in categories based on their body weight and gender?*

The aim is that athletes lower the weight until the bar touches athlete's chest, let it completely still for a moment and finally, lift the bar to maximum with elbow fully extended. Lifters have three attempts each time that the bar load is changed. The winner is the lifter who rises more weight.



## Competition categories

For safety, lifters must be at least 14 years of age and have the ability to fully extend the arms with no more than a 20 degree loss of full extension on either elbow when making an approved lift.

Body Weight	
Men	Women
Up to 49.00 kg	Up to 41.00 kg
Up to 54.00 kg	Up to 45.00 kg
Up to 59.00 kg	Up to 50.00 kg
Up to 65.00 kg	Up to 55.00 kg
Up to 72.00 kg	Up to 61.00 kg
Up to 80.00 kg	Up to 67.00 kg
Up to 88.00 kg	Up to 73.00 kg
Up to 97.00 kg	Up to 79.00 kg
Up to 107.00 kg	Up to 86.00 kg
Over 107.00 kg	Over 86.00 kg

**¿Do you know...? Loida Zabala (Losar de la Vera, Extremadura)**



Results of Season 2014-2015:

- Gold Medal in the American Open.
- Gold Medal in the Spanish Championship.
- Gold medal in the "Champion of Champions".
- Gold Medal in the Spanish Cup.
- 4th place (with National record) in the Dubai World Championship 2014.



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# Para Rowing

TM



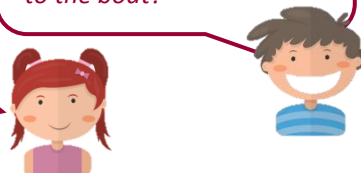
<http://www.pararowing.org>

Rowing is based on propelling a boat on water using oars. By pushing against the water with an oar, a force is generated to move the boat. The boat can count with and without helmsman.

*Did you know that some boats have side pontoons to provide greater stability to the boat?*



This sport is practiced mainly in the sea, but competitions are often organized on lakes and reservoirs, so environment conditions are the same for all participants.



**LTA**

**TA**

**A (M-W)**

Function in legs (L), trunk (T) and arms (A), and good strength to slide the seat. It includes athletes with physical, visual or intellectual disabilities and mixed gender boats: men and women.

Movement trunk (T) and arms (A) but without the necessary strength in lower extremities to slide the seat and propel the boat. Mixed boats, with two rowers, and fixed seat.

They have little or none trunk function which implies balance problems. Able to apply force, especially, with arms and / or shoulders (Arms). Boats with one rower.

## Do you know...? Juan Pablo Barcia - (Vegadeo, Asturias)



- Silver medal at the Absolute World Championship 2009.
- Gold medal Spanish Championship (2015).
- Five consecutive Gold medals in the Indoor Rower Spanish Championship (2010-2015).



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# Wheelchair Rugby



<http://www.issbiparalympic.com>

It is a sport incorporating elements of rugby, hockey, basketball, and volleyball. It is played by four players who have physical disability and requires the use of a wheelchair. The aim of this sport is to carry the ball across the goal line.

*The clash between wheelchairs is PERMITTED, but not the physical contact. Therefore, this sport modality requires skill and strength.*

It is played on a basketball field using a volley ball. Wheelchair rugby games consist of four eight-minute quarters. Players must be affected both arms and legs, but able to propel the wheelchair. Players are assigned a functional level in points, and each team is limited to fielding a team with a total of 8 points.



0.5

1.5

2.5

3.5

Significant shoulder instability and limitations hands and arms function. Poor trunk or legs control.

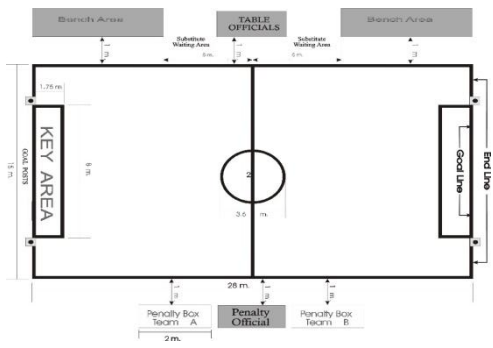
Better shoulders stability and wrists function, but still limited ball security when passing

Good shoulders stability and arms function. Some control on the trunk. Better ball security when passing and receiving.

The less severe disability. They handle the ball well and can move quickly in the court.



[www.solent.ac.uk](http://www.solent.ac.uk)



<http://usqra.org/before/rules/rules2006.htm>



<https://en.wikipedia.org/>

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# Para-table tennis

TM



<http://sports.t63.com>

Para-table tennis follows similar rules than the Olympic modality. Matches are played to five sets, and a set shall be won by the player or pair first scoring 11 points (with difference of two points if both players score 10 points).

*Did you know that it was considered the pioneer sport to combine all kinds of impairments?*

Rackets are adapted to players' needs and players can lean on the table after hitting the ball as long as the table does not move.

It is playing standing (using prosthesis or crutches) or in wheelchair, so the table must have a free space under it, (no less than 40cm) in order to introduce the legs/wheels.

## Wheelchairs

- **TT1:** No control or coordination of hand and elbow flexors.
- **TT2:** Greater coordination of arms extensors.
- **TT3:** Better movement of the upper body.
- **TT4:** There are trunk rotation and arm reaches the back in the hit. Lumbar hyperlordosis during trunk extension.
- **TT5:** Greater coordination of arms extensors.

## Standing

- **TT6:** Severe affectionation of arms and legs.
- **TT7:** Very severe affectionation of legs and moderate affectionation of playing arm.
- **TT8:** Moderate affectionation of legs and playing arm.
- **TT9:** Mildly affectionation of legs and playing arm, and severe affectionation of non-playing arm.
- **TT10:** Very slight affectionation of legs and playing arm, and moderate affectionation of non-playing arm.
- **TT11:** Intellectual Disability.

*Do you know...?*

## Álvaro Valera (Seville) – TT6

Athlete

- Two times World Champion (individual and teams modality)
- Four times European Champion and 3 times in teams modality.
- Silver medal and Bronze medal in Paralympic Games.
- Silver medal and Bronze medal in World Championships
- Two Silver medals and Bronze medal in European Championships.
- Winner of the ITTF Star Awards, greater international recognition in table tennis.



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# Wheelchair Tennis



<http://www.publico.es>

Wheelchair tennis is one of the forms of tennis adapted for those who have disabilities in their lower bodies.



The size and type of courts (grass/slow or clay/fast), balls, and rackets are the same, but there are one major differences from standing tennis: the ball may bounce up to two times, allowing the second bounce is off the court.

*Did you know that in wheelchair tennis there are two sport classes? Athletes with different levels of impairment play together.*



## Wheelchair

## Quad

Players with disabilities in their lower limbs but can propel the chair with their arms.

Tennis players with arms impairments. Players can use bandages to hold the chair or use electric wheelchairs.



<https://twitter.com/>

**¿Do you know...?**

**Lola Ochoa (Valencia)**



[www.abc.es](http://www.abc.es)

- Participation in the Athens 2004, Beijing 2008 and London 2012 Paralympic Games.
- Female Spanish Championship in all its editions.
- Winner of several international tournaments: North West Challenge 2012 (UK), Argentina Open 2012 ...
- Champion in several international tournaments in doubles modality: Open 2013 Sion (Switzerland), International Tournament Fund. Emilio Sanchez Vicario Madrid 2012 and 2013.



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# Archery

TM



<http://especiales.eluniverso.com/>

The aim of this sport is to throw arrows as close as possible to the center of a target that measures 122 cm of diameter. Para-athletes are located at a distance of 70 m.

*Did you know that there are archers who are able to hold the bow with their feet or hold the arrow with their mouth to throw just with one hand?*



The Paralympic program includes events as a separate discipline of Compound or Recurve Arch, individually and groupal competitions. In the individual ones, the winner is the best out of 5 rounds with 3 arrows each, meanwhile in the teams competition, the 3 archers have a total of 24 throwings in order to get the best punctuation.



## ARW1 (Chair)

## ARW2 (Chair)

## ARST (Standing up)

Problems in arms and poor or non-existent trunk control. In the ARW1-C subcategory the difficulties increase.

There is no limitation on arms, and trunk control is fair enough to be sitting in the chair.

Archers standing or shooting from a chair or stool. There is one subcategory ARST-C.

*Do you know....?*

**Mari Carmen Rubio (Pamplona)**



- 6th position at the London 2012 Paralympic Games in the Compound Arch category.
- 6th position at the General Phase of the World Championship IPC of Archery (Bangkok, 2013)
- Gold at the Spanish Championships 2013 (Barcelone)



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# Shooting Para Sport



Shooting Para Sport requires control and precision, where para-athletes use pistols or rifles to shoot at static target.



The goal is to hit a target with 10 concentric rings, where the center adds 10 points. The shooters fire from different positions (standing, sitting and lying) and from different distances (10, 25 and 50 m).

*Did you know that some athletes can use a special support to hold the weapon?*

## SH1

Athletes able to hold the weapon without problems. This can be a rifle or a pistol.



<http://ipc2015wc.osijek1784.hr/>

## SH2

Athletes who need a special support to hold the weapon.



[www.sportingwheelies.org.au](http://www.sportingwheelies.org.au)

## Do you know....? Francisco Ángel Soriano (Elche) – SH1



[www.paralimpicos.es](http://www.paralimpicos.es)

- Participation in pistol category at the Beijing 2008 Paralympics Games.
- Gold medal at the World Championship 2002.
- Gold medal in pistol category at the European Championship 2001.
- Silver medal in pistol category at the European Championship 2007.



[www.paralimpicos.es](http://www.paralimpicos.es)



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# Para-Sailing



Para-Sailing is a multi-disability sport, opened to people with amputation, cerebral palsy, visual impairment and wheelchair users. Thus, athletes with different capacities compete in the same categories according to their degree of functionality.

*Did you know that there are boats that can be controlled with the mouth?*

Paralympic sailing differs from Olympic in the equipment, which is adapted to different types of disability. Each sailor receives a score based on their degree of functionality.

## Sonar

It is a boat of 8 m in length and three athletes. Team game is combined with speed and strategy.

## SKUD

Two people boat, with or without seats, that can be adapted to the diverse needs of the sailors.

## Sailing 2.4 MR

It is individual and both men and women compete. The athlete must have speed to solve the difficulties of the race and take maximum advantage of the conditions of navigation.

*Do you know....?* **Rafa Andarias (Jávea, Alicante)**



- Several participations in World Championships.
- Fourth position at the European Championship 2014 (Valencia, Spain)
- Gold Medal at the National ranking class 2.4mR.
- Four times Spanish Champion of 2.4MR.



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# Sitting Volleyball



<http://www.estoesdxt.es/>

It is practiced sitting and it is open to any athlete with a physical disability and / or reduced mobility that has the minimum disability requirements.

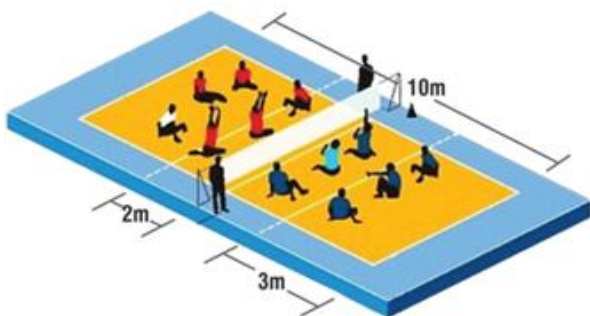
*Did you know that you can hit the ball with any part of the body?*

Two teams of six players face on a 10 x 6 m track, divided by a net of different height depending on the sex of the players: 1.15m for boys and 1.05m for girls. Each team must get the ball to dribble in the opposing field, and the matches are played to the best of 5 sets.

- Whenever the ball is hit, the buttocks should be in contact with the ground.
- The game starts with the service and the play lasts until the ball touches the ground, goes outside, a team fails returning the ball or makes a fault.
- Each play is a point.
- A set is won by the team that first scores 25 points, with a minimum advantage of two points.
- The match is won by the team that wins three sets, but in case of a draw, the decisive set is played 15 points long.



<http://enables.me/>



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# Para-Biathlon



Los Juegos Olímpicos  
Paralímpicos



This Para winter sport combines cross country skiing and rifle shooting. There are various events and modalities: Individual, Sprint, Chase, Relay and Mass Start.



It is developed in a 2.5 km circuit, which is repeated 5 times in all categories except for skiers on sit-ski. The shooting target is located at 10m of distance.



*Did you know that blind skiers use an acoustic guide system to hear where the shooting target center is?*

## Visual

## Standing

## Sit-Ski

- **B1:** total blindness.
- **B2:** visual impairment with a small rest of vision.
- **B3:** visual impairment with greater rest of vision.

- **LW2:** affection on one leg (eg amputation above the knee)
- **LW3:** affection on both legs.
- **LW4:** affection on one leg (less impaired than LW2)
- **LW5 / 7:** both arms affected, and limits the use of the poles.
- **LW6:** severe limitation in one arm (eg amputation above the elbow)
- **LW8:** moderate limitation of one arm.
- **LW9:** limitation in one arm and one leg.

- **LW10-10.5:** limitation in legs and trunk.
- **LW11-11.5:** from moderate to good trunk control.
- **LW12:** limitation in the legs and normal trunk.



www.cbc.ca



www.paralimpicos.es



losjuegosolimpicos.com



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# Wheelchair Curling



www.paralympic.com

Wheelchair Curling is practiced by athletes with reduced mobility and the teams are made up of athletes of both genders. There is no track sweeping action as in conventional curling.



In this sport, players slide stones/rocks, weighted between 17.24 to 19.96kg, on a sheet of ice towards a target area which is segmented into four concentric circles of different colors (see image below).

*Did you know that some sticks are used for launching and that a friend can hold the chair?*



Participants are wheelchair users with some of the following impediments: lack of strength, reduced range of motion, amputations, hypertonia or coordination problems (athetosis or ataxia)

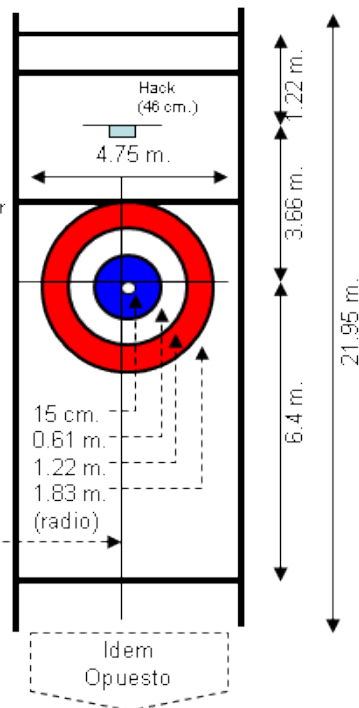
Línea Final

Línea Posterior

Línea Medial

Línea Central

Línea de Lanzamiento



www.trafficsteed.com

www.snipview.com



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# Para-Alpine Skiing



It includes several events: downhill, supergiant, giant slalom, slalom and the super combined, which consists of a sleeve of super-giant and another of slalom.



*Did you know that athletes with visual impairment compete with guides who guide them along the track?*

Materials such as prosthesis, sit-ski (seated) and special poles are used to help maintain stability and help in the turnings.



## Visual (Standing)

- **B1:** total blindness.
- **B2:** visual impairment with a small rest of vision.
- **B3:** visual impairment with greater rest of vision.

## Standing

- **LW1:** severe affectionation on both legs (e.g. double amputation above the knee)
- **LW2:** affectionation on one leg (e.g. amputation above the knee)
- **LW3:** moderate affectionation on both legs.
- **LW4:** affectionation on one leg (e.g. amputation below the knee amputation = less impairment than LW2)
- **LW5 / 7:** both arms affected, that limit the use of poles.
- **LW6 / 8:** limitation on one arm and can only carry one pole.
- **LW9:** limitation in arms and legs.

## Sit-Ski

- **LW10:** do not have trunk control or have just a minimum of it.
- **LW11:** good upper trunk control but limited in abdomen and pelvis.
- **LW12:** minimal limitation in trunk or affectionation in legs.

## Do you know...?

### Jon Santacana (San Sebastián) – B2

- Bronze medal in Downhill at the Salt Lake City 2002 Winter Paralympics Games.
- Gold Medal in Downhill and Silver medals in Slalom and Giant Slalom at the Vancouver 2010 Winter Paralympics Games.
- Gold and Silver medal in Downhill at the Sochi 2014 Paralympics Games.



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# Para Cross-Country Skiing



It can be practiced either standing or in a sit-ski, in individual tests and reliefs.



Distances range from short (2.5 to 5 km), medium (7 to 10km) and long distance (15 to 20 km).



## Visual

- **B1:** total blindness.
- **B2:** visual impairment with a small rest of vision.
- **B3:** visual impairment with greater rest of vision.

## Standing

- **LW2:** affection in one leg (e.g. amputation above the knee)
- **LW3:** affection in both legs.
- **LW4:** involvement of one leg (less impairment than in LW2)
- **LW5 / 7:** two arms affected, that limit the use of poles.
- **LW6:** severe limitation in one arm (e.g. amputation above the elbow).
- **LW8:** Moderate limitation of one arm.
- **LW9:** limitation in one arm and one leg.

## Sit-Ski

- **LW10-10.5:** limitation in legs and trunk.
- **LW11-11.5:** From moderate to good trunk control.
- **LW12:** limitation in the legs and normal trunk.



revistadiscover.com



www.calend.ru



www.teinteresa.es



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# Para Ice Hockey



www.paralympic.es



It is one of the most spectacular Para-sport in the program, where athletes move into a kind of sledge / skate using 2 sticks to push themselves on the ice.



Games are played in three parts of 15 minutes and six players per team participate. The main objective is to score in the opposing goal.



*It is a sport of great physical contact that sometimes generate fights among the players of the teams because of the great tension and stress for the victory.*

Athletes must have permanent impairments in the lower part of the body:

- Amputation through or above the ankle.
- Loss of muscle strength in both legs.
- Ankylosis of the ankle joint and / or extension defect of  $> 30^\circ$  or ankylosis of the knee joint.
- Hypertonia or coordination problems due to ataxia or athetosis.
- Difference  $> 7$  cm in leg length.



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# Para Snowboard



Snowboarding first appeared at the Sochi 2014 Paralympic Games.

It is practiced by athletes with physical disabilities who snowboard along an artificial circuit built with different obstacles such as jumps, ramps, pipes, etc. Unlike the Olympic modality, in the Paralympic the competitors take the exit one by one.

*Do you know that the main event at the Paralympic Games for this para-sport is the Banked Slalom?*



## SB-UL

Limitation on upper limbs and affecting balance during descent.

## SB-LL

Athletes with disabilities in the lower limbs:

- **SB LL-1:** great affection in one leg, which must affect the balance and ability to control the table and adapt to the terrain. Athletes with amputation should wear prosthesis during the competition.
- **SB LL-2:** Athletes with less affectation.

Do you know....?

## Astrid Fina Paredes (Barcelona) – SB-LL

- Sochi 2014 Paralympic Games - Snowboard Cross – 6º position.
- World Championship 2013-2014 Snowboard Cross – 11º position.



deportista



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