

## 1. Musculoskeletal Disability

According to WHO (2022) Musculoskeletal impairments comprise more than 150 different diseases/conditions that affect the system and are characterized by impairments in the muscles, bones, joints and adjacent connective tissues leading to temporary or lifelong limitations in functioning and participation. Musculoskeletal conditions are typically characterized by pain (often persistent) and limitations in mobility and dexterity, reducing people's ability to work and participate in society.

- a) mechanical and functional disabilities to the superior, inferior, or all members.
- b) spastic paralysis of more than one member (hemiplegia, paraplegia, and tetraplegia).
- c) motor alterations with repercussions on the articulation and rhythm of language.
- d) specific difficulties in maintaining balance.
- e) motor incoordination of one or several parts of the body, etc.

It is common to associate motor disability with the use of a wheelchair, although many other technical aids may be necessary to facilitate mobility, such as crutches, prostheses, canes, etc.

The main difficulties these people face are:

- architectural barriers.
- difficulty carrying and/or handling technical equipment and/or objects.
- difficulty using public transport.
- inability or difficulty in performing activities of daily living autonomously and independently.
- difficulty accessing toilets, public telephones, elevators, leisure facilities, restaurants, shops, malls, cultural sites, etc.

- difficulty in accessing information displayed on billboards, service counters, ATMs, among others.

In this sense, the NOVA has sought to eliminate architectural barriers, and as mentioned above, most of the teaching buildings, canteens and bars are adapted to receive students with SEN, with adapted sanitary facilities and parking spaces for people with reduced mobility.

Likewise, the Social Action Services (SAS) are prepared to welcome students with this type of difficulty into their student residencies.

NOVA libraries are equipped with ramps and/or elevators, facilitating access.

### **1.1. Difficulties in the Classroom**

Although the greatest difficulties are related to mobility, directly or indirectly musculoskeletal deficiencies can have repercussions on learning processes (Molla, 2005; Patrício, 2007). So, it can be difficult to:

- a) accomplish a certain task in the stipulated time for most peers.
- b) writing conventionally.
- c) handling documents.
- d) participating in practical classes that imply some specific mobility.
- e) maintain high levels of concentration in class (due to fatigue from rigid postures).
- f) taking notes at the pace of the class.

### **1.2. What to do?**

- Whenever necessary, ensure that a second person accompanies the student. In this case, communication must be established with the student and not with the person who accompanies them.
- Provide access to existing car parks on all campuses of the Organic Unit (OU).
- Adapt the physical environment in order to make it accessible (eg those who need to use a wheelchair must have adapted tables, usually higher than those of colleagues).
- Consider the student in the class when booking rooms, considering factors such as proximity or ease of access.
- When talking to a student in a wheelchair, it is better to sit at their level, so that they can feel more comfortable (since it is uncomfortable to talk with your head up).
- Before starting to push a wheelchair, ask the student if they need support.
- Whenever driving a wheelchair, proceed with caution, as the person could feel uncomfortable if you hurt other people with the wheelchair.
- The student should occupy a place relatively close to the professor.
- Avoid anticipating the student's responses or answering for the student. Respect the rhythm of individual expression.
- Provide notes and/or bibliographical information in advance, thus facilitating the writing/summary of the class.
- Allow the student to complete assignments by allowing additional time if necessary.
- Allow them to resort to external people, who take notes for the student and who, in an exam situation, can write their answers; in these situations, they should stay in separate spaces and with their own supervision.

In summary, maximum independence should be promoted within the scope of the abilities and limitations of the student with musculoskeletal disabilities but taking into account the inherent needs of each case.

Referral associations include:

- Instituto Nacional de Reabilitação (National Institute for Rehabilitation)
- Associação Portuguesa de Deficiência (Portuguese Association for Disability)
- Guia de Acessibilidade em Portugal (Portuguese Guide of Accessibility)
- Associação Salvador (Salvador Association)

## **2. Visual Disability**

Visual Impairment is a partial or global damage to the Visual System, which may vary in terms of its causes (trauma, disease, malformation, poor nutrition) and/ or nature (congenital, acquired, or hereditary) translating into a reduction or loss of ability to perform visual tasks (reading, recognizing faces) (Pereira, 2008).

According to the World Health Organization (WHO, 2022), The International Classification of Diseases classifies vision impairment into two groups, distance and near presenting vision impairment.

Distance vision impairment:

- Mild – visual acuity worse than 6/12 to 6/18
- Moderate – visual acuity worse than 6/18 to 6/60
- Severe – visual acuity worse than 6/60 to 3/60
- Blindness – visual acuity worse than 3/60

Near vision impairment:

- Near visual acuity worse than N6 or M.08 at 40cm.

## **2.1. What to do?**

### 2.1.1. Classroom organization and management strategies

- Read aloud while writing on the board.
- Provide verbal information that allows the student to become aware of events taking place in the classroom.
- Alert the student whenever there are changes in the layout of the classroom.
- Write in a color that contrasts with the color of the board (eg white/black).
- Whenever possible, avoid reflections of light on the board and on the work surface (by closing the curtains or lowering the blinds).
- Avoid positioning yourself in front of the window.
- Do not position the student facing a light source (natural or artificial).
- In the classroom, place the student in a place that provides them with a better field of vision and allow them to change places, depending on the tasks at hand and the optical and/or technical aids they use.
- Allow the student to take a break whenever they show signs of fatigue, such as watery, red eyes or headaches.
- Whenever possible, alternate tasks that require greater visual effort with non-visual tasks.
- Give the student some time to adapt to changes in light intensity, for example when coming in from outdoors.
- Ensure that the student needs additional lighting (task lamp) and that the lighting conditions are adequate (intensity, type and direction of the light source).
- Give the student the time necessary to perform tasks that require greater visual effort, such as reading.

- Allow the use of laptops with headphones, as it makes taking notes more efficient.
- Provide alternative formats (Braille or accessible digital format) of the printed material needed for the lesson.
- Avoid any sentimental considerations of blindness or references to it as a torment.
- Avoid utterances of astonishment when a blind person performs usual daily tasks.

### 2.1.2. Tips for adapting work materials

It is important that you can understand, together with the student, which is the most functional strategy to adapt the study materials. Often, students who enter higher education are already familiar with a set of strategies that include the preference of a certain screen reader, exclusive use of braille, among others.

At the beginning of the school year, some support in terms of orientation and mobility may also be important, with the aim of helping the blind student and/or with low vision to build a cognitive map of the space of the institution that surrounds him and to move around in that space.

Thus, the question “Do you want help?” it is not inappropriate. On the contrary, any blind or partially sighted person will be confused and unhappy if someone takes them by the arm and pulls them along without a word.

Referral associations include:

- Academia Acessível – Accessible Academia
- BAES: Biblioteca Aberta do Ensino Superior – Open Library of Higher Education
- Centro de Recursos para a Inclusão Digital – Center of Resources for Digital Inclusion

- European Union of The Blind
- Sobre a Deficiência Visual – About Visual Disability

### **3. Hearing Disability**

Hearing impairment is the partial or total loss of the ability to hear. Any individual whose hearing is not functional in day-to-day life is considered deaf; a person is considered partially deaf when their ability to hear, even if deficient, is functional with or without a hearing aid (Neves, 2007; Paul, Trezek & Wang, 2009; Francisco & Neves, 2010).

Different types of hearing disability include:

- Conductive Hearing Impairment
- Sensory-Neural Hearing Impairment
- Mixed Hearing Impairment
- Central Hearing Impairment / Central Hearing Dysfunction / Central Deafness

#### **3.1. What to do?**

- Speak clearly and at a leisurely but natural pace.
- Turn towards the student when addressing him.
- Never speak while your back is to the student.
- Place yourself in a place and position where your face is visible and well lit.
- Do not stand in front of a light source. This will darken your silhouette and lose details of your face and lips.
- If you are asked to speak louder, do not shout. This will be irritating to the listener, will distort the sound and change the lip configuration.
- Gesture is everything – use your hands and body to communicate.

- Invest in the visual memory of the deaf person, complementing your oral exposition with images, graphics, schemes, shapes, colors...
- Give the Deaf student extra time to process the information (particularly when dealing with new or important concepts).
- Always address the person who is deaf and not the interpreter. Never if
- address the interpreter by saying “ask him” or “tell him”.
- Do not assume that the Deaf student is following along and understanding everything. Check in from time to time by asking him direct questions about the subject at hand.
- Choose to ask questions whose answer reveals the effective understanding of the message.

### **3.2. What to do if the student doesn't understand you**

- Repeat what you said using other words.
- Don't speak louder. This will not help the student to hear you better, it will only make possible lip reading more difficult.
- Give clues about the context of the subjects you are talking about.
- If you feel that communication does not flow, help yourself with writing.

### **3.3. Classes**

- Provide copies of the lecture/presentation in advance. This will allow the student to become familiar with the structure, material, and vocabulary of the session.
- At the beginning of class introduce the following structure (eg bullet points on the board). Repeat it throughout the class to help the student follow the topics logically.
- Record all important information on the board.



- Write down any notices you want to give (eg, office hours, test dates, schedule/room changes).
- Provide a glossary of new specific/technical vocabulary or write new terms on the board. It becomes impossible to lip read unfamiliar words.
- Avoid moving around the room while talking. The student may need to read your lips, an impossible task if he cannot see your face straight on.
- Deaf students cannot read and listen at the same time.
- If the student needs to focus on written materials or mechanical processes, give them time.
- Only speak again when they are looking at you again.
- Metaphorical language, idiomatic phrases and jokes can be confusing to Deaf people, particularly if they do not belong in the context of the subject being discussed. Avoid using them and if you do, explain their objective meaning.
- Present audiovisual material with subtitles.
- If you do not have the subtitled audiovisual material, provide the student with a written summary of the subject, before the presentation. If possible, provide the material to the student so that he can view the material with someone to help him decode the messages. Discuss with the student which solution is most useful.
- Use new technologies: the computer and the internet are great allies.
- The help of professionals/colleagues to take notes or interpret the class may interfere with the normal functioning of the class. However, they can be an invaluable aid to the Deaf student.

### **3.4. Group Assignments**

- Make sure there is good lighting in the workspace and arrange the group in a semicircle so that everyone can see each other well and the Deaf person can lip read.
- Make sure the session is well moderated. Ask all students to indicate (eg by raising their hand) when they want to participate in the conversation so that the Deaf student knows in advance who will be speaking.
- Use supporting visual materials with the main subjects/topics of the discussion (eg blackboard, powerpoint). Ask someone to write a summary of the matters discussed.
- Whenever possible make sure the workspace has good acoustics so that there is less noise interference.
- Avoid classrooms near noisy indoor/outdoor areas (eg sports field, cafeteria, entrances/exits).
- Encourage interaction. The Deaf student has something to say (in oral or gestural form); he just needs more time and for others to adapt to his way of communicating.

### **3.5. Evaluation**

- Avoid using long and complex sentences. Break the sentence into several simple sentences.
- Make sure the question is stated concisely and clearly. Avoid joining multiple questions in the same question.
- Write the sentence in the order in which the activity will take place.
- If possible, list the different questions to be addressed in a long/free response.
- Encourage the creation/use of conceptual schemes to organize questions that require long answers.
- Clearly indicate the extent of the intended response.
- Avoid using multiple-choice strategies. It requires keeping the first part in memory to complete the idea. This is a task that can

be very difficult for the Deaf person. It is natural that the deaf student needs more time to solve his test.

### **3.6. Sign Language Interpreters**

- The Portuguese Sign Language (LGP) interpreter “translates” from the oral Portuguese to LGP and vice versa. LGP is a full-fledged language with its own grammar and structure.
- In the presence of an interpreter, address the student and not the interpreter. The interpreter will then begin interpreting.
- The role of the interpreter is only to facilitate communication, not to participate. It is the responsibility of the student (not the interpreter) to ask for clarification if they don’t understand the teacher.
- In the same way, you should ask the student if he understood and never the interpreter.
- Speak at your usual pace. The interpreter will ask you to slow down, stop or repeat if necessary.
- Try to structure your session so that you have a short break in the middle. Sign interpretation is very demanding, and interpreters will need a break after 30 minutes if they are working continuously. In the case of long seminars, it is advisable to work in teams of two.
- To interpret effectively, it is essential that the interpreter understands the matters involved. The interpreter will need to prepare the working session and should receive glossaries, notes, presentations, and other material considered relevant in advance.

Referral associations include:

- Aprendendo com gestos – Learning with Gestures
- Federação Portuguesa das Associações de Surdos – Portuguese Federation of Deaf Associations

- W3C World Wide Web Consortium
- UMIC – Programa Acesso UMIC – UMIC’s Access Program
- WebAim – Web Accessibility in mind

#### **4. Learning Disabilities – Dyslexia**

The diversity in terminology used by researchers persists today (for example: reading difficulties, specific reading difficulties, reading delay, reading disorder, unexpected reading difficulties, dyslexia...). In the latest version of DSM-V (APA, 2013) the official designation of Specific Learning Disorder in Reading or Calculus is used to refer to what was formerly known as dyslexia/dyscalculia.

Below we will present a brief characterization of these specific learning disorders, as well as some intervention strategies, choosing to keep the name most frequently associated with reading difficulties (Dyslexia), Dysorthography (difficulties related to writing), Dysgraphia (associated with spelling) and, finally, dyscalculia (difficulties associated with calculus).

##### **4.1 Dyslexia**

Dyslexia is a specific learning disability, neurologically based, which implies difficulties in correct and/or fluent word recognition and/or poor decoding abilities and spelling problems; deficit in the phonological component; unexpected difficulties with other cognitive skills and a supportive school environment; problems with reading comprehension and reduced reading experience (AID, 2007).

This is a difficulty related to neurological disorders, often confused with disinterest, lack of motivation, lack of intelligence, etc.

Dyslexics have abilities (Reid, 2011) such as:

- Good visual skills and three-dimensional visualization

- Ease of verbal expression
- Good skills in teamwork
- Good understanding of language

The difficulties presented below may not manifest in all people with dyslexia. However, these are some of the difficulties to be taken into account when trying to identify this condition. When they reach adulthood and/or higher education, all those who have dyslexia will have already developed their strategies (more or less adaptive) to deal with this condition.

In general, dyslexic students show:

- Reduced reading speed
- Bad phonetic spelling
- Poor spelling
- Difficulties in numeracy
- Greater difficulties in acquiring study skills
- Difficulty taking notes, writing assignments, revising for evaluations, or understanding large amounts of complex text
- Low self-confidence and self-esteem
- High levels of frustration that condition school performance
- Higher levels of anxiety
- Feelings of academic and writing incompetence
- Difficulties in organizing
- Difficulty following instructions
- Difficulty in spatial orientation - left/right; up down
- Difficulty concentrating

When compared to peers without dyslexia, dyslexic students have greater difficulties in reading speed, taking notes, organizing work and expressing ideas in writing (Mortimore & Crozier, 2006; Jamieson & Morgan, 2008). In general, it is possible that these students base their study more on memorization than on taking notes.

Next, we will present specific difficulties in skills related to languages and their respective intervention strategies.

#### 4.1.1. Writing

- Poor calligraphy
- Lack of coherence while presenting ideas
- Poor punctuation
- Incorrect use of verb forms
- Limited use of verbal lexicon
- Bizarre spelling of common words
- Swapped letters (b-d or p-q)
- Confusion with letters that make the same sound (s-z)
- Incapacity to check for errors, even with programs for text correction.

##### 4.1.1.1. Strategies

- Give selective and positive feedback about mistakes they made.
- Value the content instead of the presentation and avoid penalizing the student (unless it's related to the chore of your class).
- Avoid derogatory comments on the writing skills of a dyslexic student (most of them are aware of these difficulties and feel frustrated when they receive unconstructive feedback).
- Avoid corrections with a red pen, as it is usually associated to negative experiences during their school years.

#### 4.1.2. Reading

- Difficulty recognizing and remembering word sounds.
- Replacing words with similar ones when reading aloud (semantic confusion).
- Inability to skim through text.
- Reduced reading speed.

- Difficulty with alphabet sequence.

#### 4.1.2.1. Strategies

- It may be useful to help the student select books and central texts from the bibliography.
- Whenever technical and specific concepts are presented, it may be important to write a glossary.
- Support in “strategic reading” can also be very useful, helping students to learn to select information and define goals for reading.
- Asking the student to read aloud should be avoided.

#### 4.1.3. Taking notes

- The Professor should provide notes, presentations, and course summaries in advance.
- It may be useful to make a summary of what will be taught in class.
- PowerPoint presentations should have a spacing of 1,5 and each slide should contain clear and concise information.
- You should allow audio recordings of class for personal use only to help students take notes. The students should ask for permission before recording.

## **4.2. Dysorthography and Dysgraphia**

Dysorthography and Dysgraphia appear to be associated with Dyslexia, although they can also manifest in isolation. Dysorthography refers to a difficulty in spelling accuracy, or the difficulty in accessing the orthographic representation of a word.

Dysgraphia is characterized by an incorrect graphic posture, an inadequate way of holding the pen, letters disconnected or confused

with others, very variable letter size, writing inclination, and/or variable line thickness, etc..

Strategies for these students will be similar to the ones used for Dyslexic students.

### **4.3. Dyscalculia**

Dyscalculia is a disorder that affects the areas of the brain responsible for calculation tasks. It can appear together with dyslexia or by itself. Intellectual capacity is maintained, with only an impairment of mathematical competence. It translates into a severe and persistent difficulty in learning arithmetic, namely numbers and basic operations that result in problems in calculation.

It is characterized by a deficit in the memorization of arithmetic facts, the calculation easily causes errors, and in the sense of the number (APA, 2013). Numerical sense includes oral counting, identifying and knowing numbers, and basic number operations such as comparing numbers or identifying close numbers.

#### 4.3.1. Strategies

- Give selective and positive feedback about mistakes they made.
- Avoid derogatory comments on the calculating skills of the student (most of them are aware of these difficulties and feel frustrated when they receive unconstructive feedback).
- Allow the use of a calculator or computer, with possible changes in the indication of numbers, to carry out simple calculations. This possibility must be articulated with the Professor and, eventually, it can involve the use of non-scientific calculators.

### **4.4. Other strategies**

- The student can be given extra time in the exams.



- It may be beneficial for the teacher who supervises the exams to read the questions aloud.
- Some students may benefit from using a computer during the exam and, consequently, the use of specific software may be necessary. It may also be necessary to perform the examination in a separate room.
- It may be essential that the student has support from a teacher, who works specifically with his difficulties in reading and writing.
- It may be necessary for the student to have additional time to borrow books from the library.
- Flexible delivery deadlines can be agreed upon (depending on the situation).
- Allow or negotiate small adaptations in academic tasks, for example, allowing the presentation of the work to be carried out on video (replacing the written version).

Specific learning difficulties may have consequences for the progression, achievement and conclusion of higher education, but they are not incompatible with a high level of success, as long as they are supported by an adjusted intervention.

Referral associations include:

- The International Dyslexia
- Dislexia em Português – Dyslexia in Portuguese
- Associação Portuguesa de Dislexia – DISLEX (Portuguese Association of Dyslexia).

## **5. Autism Spectrum Disorder**

Autism Spectrum Disorder (ASD) is defined by the presence of persistent deficits in communication and social interaction in multiple contexts, which include verbal and non-verbal communication and the sharing of emotions; it is also characterized by restricted and repetitive

patterns of behavior, interests or activities, which include obsessive routines, hyper or hypo sensory sensitivity, among other behaviors (APA, 2013). These symptoms may be of greater or lesser severity, which may make the diagnosis difficult. Although the DSM-V does not necessarily include Asperger Syndrome, a condition with less severe symptoms, as being a separate category, this is still widely used to differentiate from Autistic Disorder, in which the symptoms are more severe.

The APSA – The Portuguese Association of Asperger Syndrome presents the following definition: Asperger Syndrome is a genetically based neurobehavioral disorder, which can be defined as a developmental disorder that is manifested by alterations, above all, in social interaction, communication and behavior. Although it is a dysfunction originating from a particular brain function, there is no biological marker, so the diagnosis is based on a set of behavioral criteria, such as:

- Difficulty in communication
- Difficulty in social relationships
- Difficulty in abstract thinking
- Limited interests
- Routine behaviors
- Peculiarity of speech and language
- Difficulties in non-verbal communication
- Poor motor coordination
- Difficulty feeling empathy
- Resistance to change

The student with Asperger's Syndrome may have a sophisticated vocabulary and talk incessantly about their favorite subject, having difficulty switching to another topic of conversation. They may show difficulties with the rules of conversation, not knowing some of the

implicit rules of social contact. They may interrupt or overlap, make irrelevant comments, have great difficulty starting and ending conversations. Their speech is usually monotonous, not applying prosody correctly. Also, their physical posture and the interpretation they make of the verbal speech of the other is often inadequate (Attwood, 1998).

It is necessary to be careful with a student with Asperger's, who may have some of the following characteristics:

- Outbursts of anger (physically or verbally)
- Motor agitation
- Increased obsessive or repetitive activities
- Apathy or inactivity
- Bizarre behavior or ideas
- Greater difficulty moving
- Isolation

### **5.1. What to do?**

- Maintain regular classroom routines.
- Promote the participation of students with ASD in workshops, training, or counseling, which promote study skills, personal development, or professional guidance.
- Allow you to sit in suitable places in a room or amphitheater.
- Give more time to take notes and notes on the matter.
- Explain the best time to ask questions, correcting the posture, without being defensive or critical of the student's attitude.
- Use clear and objective communication.
- Concretely expose the objectives, procedures and deadlines related to the curricular activities.
- Explicitly indicate who are the people they should contact.
- Indicate in detail the subjects that should be studied.

- If the student is very anxious, try to talk about other topics or inform them about what is happening or will happen.
- If the student is not able to make oral presentations, it may be necessary to resort to alternative ways of presenting work.
- Warn about any changes in the Curricular Unit.
- In agitated or aggressive situations, do not respond aggressively and wait or try to calm the student down.
- In cases where it is not possible to reach a consensus with the student on the need to modify his behavior, it may be useful to simply obtain the student's agreement not to repeat the misbehavior.
- Opt for a “non-confrontation” attitude. Keeping calm is essential to keeping the student calm and safe.
- Avoid, as much as possible, being condescending or protective, or maintaining an overly close and paternal relationship with the student.
- Allow these students to explore alternative answers appropriate to their characteristics and, if necessary, adjust the assessment method.

## **5.2. How to deal with a crisis?**

### 1. Guarantee Security

- a. Make sure the student is safe and cannot injure himself or cause harm to others
- b. Do not allow them to lie down at an exit point
- c. Do not arrest the person, leaving him the possibility to leave
- d. If they leave, do not chase the student and follow them at a distance

### 2. Soothing

- a. It is essential to remain calm, so that the student feels calm

- b. Be aware that the crisis will pass, sooner or later
3. Silence
  - a. Say only the necessary
  - b. Do not question the student
  - c. If you do speak, keep your voice calm and neutral
4. Decrease the intensity of symptoms
  - a. Accept the crisis and give the student time to recover
  - b. Don't look at the clock or rush
  - c. Evaluate the need to call the student's emergency contact or case manager if you have one
  - d. Evaluate the need to call emergency services if the crisis does not subside
5. Restore the person's self-control
  - a. Once the crisis has passed, give the student the opportunity to explain what happened without pressuring them.
  - b. Give them space to breathe and rest.

Referral associations include:

- Associação Portuguesa de Síndrome de Asperger – Portuguese Asperger's Association
- The National Autistic Society (UK)
- Autismo Europe – Autism Europe
- Os primeiros sinais de alerta – The first warning signs

## **6. Attention Deficit Hyperactivity Disorder**

Attention Deficit/Hyperactivity Disorder (ADHD) is more frequent in childhood, but it can also appear in the context of higher education. Its essential characteristic is a persistent pattern of inattention and/or

hyperactivity-impulsivity, which interferes with functioning or development. Young people with these characteristics show high inattention or difficulty in maintaining focus, switching between tasks and disorganization. In adults, hyperactivity is manifested by extreme restlessness or exhaustion of others with their activity, in addition to great impulsivity with high potential for harm to the person (APA, 2013).

Intervention in ADHD should normally combine different therapeutic intervention processes, the most effective of which are pharmacological, psychotherapeutic (direct clinical intervention with the student) and psychosocial/psychoeducational (may include parenting programs, intervention in family dynamics and intervention programs in school context). Pharmacological intervention is essential in cases of more severe behavior that cause significant interference in the quality of the student's social, academic or occupational functioning.

In general, adults with ADHD may have:

1. Low productivity/academic performance
  - a. fail to complete tasks on time
  - b. start new tasks without finishing the previous ones, ending up not finishing any of them
  - c. forget about business, errands, meetings
  - d. have difficulty maintaining attention in activities, easily distracted by other stimuli
  - e. reveal difficulties in planning and organizing activities.
2. Emotional and social changes:
  - a. Low self-esteem
  - b. Difficulties in emotional regulation; depressive and/or anxious symptoms

- c. Difficulties in social relationships with peers and/or family members
- d. Social isolation
- e. Possible presence of some disruptive behaviors (eg involvement in injury situations due to accidents and/or impulsivity) (Moura, Simões and Pereira, 2020).

### **6.1. What to do?**

- Allow the student to sit in the seats positioned at the front of the classroom to avoid distractions.
- Position yourself so that the student can see body language and facial expressions while the teacher is talking.
- Give clear and precise instructions while maintaining eye contact.
- Simplify complicated indications and break them down into steps.
- Use visual association and written repetition to improve memory.
- Use direct engagement, physical manipulation, and manual activities to improve motivation, interest, and memory.
- Include multiple activities in each lesson.
- Provide periodic breaks during lessons.
- Allow for some physical movement (e.g., kicking legs, going to the board).
- Allow extra time during tests/exams.
- Divide research papers into small segments and set different due dates for each.
- Support the student in the organization of tasks and encourage the use of:
  - schedules for recording tasks.
  - clearly visible calendars in the workplaces with the inscription of the dates of moments of written evaluation and presentation of works.

Referral associations include:

- Portal da Hiperatividade – Hyperactivity Forum
- Attention Deficit Disorder Association
- Recursos sobre PHDA – Resources about ADHD

## **7. Mental Health Issues**

Special Educational Needs may be transitory or permanent, having the latter been analyzed thus far. Below, we will analyze some special needs that aren't permanent and may not be covered by the SEN student status.

Recent data points to more than 30% of higher education students who have mental health problems that can interfere with their academic career (Sarmiento, 2015) and in Portugal, a study pointed to 48% of higher education students having severe psychological symptoms (Teixeira & Moreira, 2020).

Each mental disorder is conceptualized as a significant behavior or psychological syndrome or pattern that occurs in an individual and that is associated with current distress (painful symptom) or disability (in one or more important areas of functioning) or with an increased risk of death, suffering, disability or a major loss of freedom. Furthermore, this syndrome or pattern cannot be merely an expected and culturally sanctioned response to a particular event, such as the death of a loved one. Whatever the original cause, it must be considered a manifestation of a behavioral, psychological or biological dysfunction in the individual. Neither deviant behavior (e.g., political, religious, or sexual) nor conflicts that occur between the individual and society are mental disorders, unless the deviance or conflict is a symptom of a dysfunction in the individual, as described above.

Mental health problems may imply disturbances in thinking, emotional stability and/or behavior. These disturbances are caused by



complex interactions between several social, psychological, cultural, physical and biological variables. Thus, people with mental disorders may have limitations in their ability to manage their daily lives, autonomously and effectively.

There are disturbances that are permanent and others of a more transitory nature. For the attribution of student status with SEN, it is important to properly define the disorder and its consequences, as not all mental health disorders can be considered special needs.

The criteria used to define the disorders that may qualify for this status are:

- The severity of the consequences on:
  - autonomy of the person
  - their learning ability
  - the people around the student
- The duration of the consequences in the daily life of the person and those around them.

### **7.1. Documentation**

Students wishing to apply for SEN status based on a mental health disorder must submit a report/statement containing information about the diagnosis, based on the DSM-IV-TR or CIF (ICD-10), prepared by a professional competent for the purpose.

### **7.2. Managing Behavioral Problems**

We now leave some general suggestions on how to deal with a student with a behavioral disorder, which may be useful in different situations (Doghonadze, 2012; Estanqueiro, 2010; Royer, 2005).

- Create a structured environment, with well-defined and clear rules, presenting the possible consequences of breaking the

rules. The student must clearly express his agreement with the defined rules and consequences.

- Whenever it is necessary to change a rule or include a new one, present it to the student and, eventually, negotiate its application.
- Maintain fair enforcement of rules for all students.
- Involve this student during class in activities such as handing out sheets, collecting material, etc.
- The teacher's behavior can be the example that the student will follow. If the professor is the first to not follow a rule, the student will tend to imitate him.
- Base communication with the student, when giving him some instruction, on a brief, precise intervention, without unnecessary additional verbalizations and followed by a reasonable time for him to comply with the instruction.
- Do not enter an argument with the student, avoiding escalation of tension.
- When necessary explain, first, quickly and precisely, what the inappropriate behavior is.
- Explain, secondly, why it is inappropriate.
- Third, give the student two options, presenting the option with the positive consequence first.
- It is important to give the student enough time to make up his mind.
- Finally, apply the consequences of the student's decision, decisively, but not authoritarian or repressive.
- Encourage student autonomy.
- Provide changes in the type of activities, so that the student can change the focus of his attention and thus relax a little.
- It may take some one-on-one conversations with the student to delineate acceptable and unacceptable behaviors.

- Often, to calm the student down, it is enough to give him time to vent and relax and then resume a calmer conversation.
- Depending on the seriousness of the situation, refer what happened to the Course Coordination and School Management, especially if there is physical or verbal violence towards the teacher or colleagues. At the limit, you can contact the public security authorities to support the resolution of the situation.
- Contact with the family can be very important.

We advise you to consider the following procedures:

Student's Behavior	attitude to be taken by the teacher
Are they violent, both physically and psychologically, with their colleagues?	Warn the student that the behavior is inappropriate. Create a written record of the event and send it to the Course Coordinator and School Board.
Are they always apologizing about how difficult it is to show their work?	Remember that the rules are defined and must be complied with. You can be understanding, but don't make too many exceptions; otherwise you will be creating problems with the other students.
Doesn't respect the teacher?	Avoid verbal or physical confrontations. Do not raise your voice or get into an argument with the student. Stop the class, take a break, and let everyone take a deep breath. If it is serious behavior, make a note of it and

	send written information to the Coordinator and Management.
Does the student show strange behavior, with changes in the tone of voice, psychomotor agitation or other changes?	Do not try to resolve. If it is very disturbed, call security and/or 112. Otherwise, make the student leave, accompanied, and inform the Course Coordinator and School Management.
Does the student ask for the teacher's personal contact, or do they try to be special in the eyes of the teacher?	Do not forget that you are the teacher of all students. Do not treat any of them in a special way, as this will reinforce inappropriate behavior and lose the respect of others.

## 8. The role of the Professor-tutor

The tutoring relationship is one of support and accompanying between a professor and a student (or a small group of students) for a period of time. It aims not only at the student's academic monitoring, but also at their psychosocial development and at optimizing their individual potential. As a tutor you must try to answer the student's necessities, but giving them in turn the responsibility of soliciting the help they need and promoting conditions for the student to make their decisions.

The success of this relationship relies on a "positive alliance" between the tutor and the student and depends on:

- The agreement between both about the objectives, responsibilities, and tasks of both parties.
- The quality of the bond and trusting relationship between the two.

It is important that the Professor-Tutor starts by knowing the requests made when submitting the SEN student status application, about:

- Special rights.
- Access to other forms and methods of evaluation.
- Adaptation of the curriculum.
- Material and technical support, etc.

It is equally important to know the specificities of the student's needs presented by the student.

Considering that the intervention measures considered most appropriate and enhancing well-being and academic success vary according to the specificity of each case, we emphasize that this document should be seen as a group of general suggestions that should be adapted and adjusted according to the demands of the context and the individual characteristics of the tutor and the tutee.

### **8.1. What to do? General suggestions**

- Inform the tutee about the confidentiality of the information shared between the two.
- Have clear definitions made with the student on when and how you will be available to them (days of the week, hours, and preferred contacts).
- Avoid systematic alterations of dates and hours scheduled as well as last minute reschedules with no prior notice. Predictability is important for a trusting relationship.
- Try to meet up with the student in a room where you won't be easily and frequently interrupted.
- Try to be careful with the first contact since this can mark the first impressions.

- Try to understand the student's prior journey and academic experiences, as well as the strategies they already use for their SEN.
- Try to listen attentively, giving feedback signals so that they know you are listening/ understanding.
- Try to have a positive speech, praise the student for their behavior when appropriate.
- Opt for open questions, of the exploratory kind ("what do you mean by...", "what do you think about...") rather than yes or no questions.
- Ask the student where they feel more difficulties. If the answer is "everything", make questions to get a more specific answer, suggesting that the two of you can look at some of the student's prior assignments.
- Have brief intervals during your sessions.
- Help in facilitating the student's integration in the University, guiding them to welcoming initiatives that happen at the beginning of the school year (mentoring).
- Show your available to answer the student's questions, namely about advice on (re)defining study plans, internships, mobility programs, etc.
- Encourage the student to speak about their feelings and, if necessary, suggest some specialized services like the Student's Support Office, The Social Action Services (SAS), etc.
- Monitor the student's progress, providing appropriate feedback to improve their performance.
- Register the encounters with the student throughout the year.

## **8.2. Attitudes to avoid**

In your relationship with the student, avoid:

- Having an excessive informal relationship, because the student may appreciate a tutor with whom they are comfortable with, but who won't forget their role.
- Using vague, general or immutable terms (labels) or "always" or "never" affirmations.
- Using vague and negative communication.
- Commenting with other professors or students about information shared in your sessions.
- Assuming personal responsibility to solve the student's problems.
- Making decisions for student.

## **9. Ethics and Responsibility**

Confidentiality constitutes a crucial ethical dimension in the relationship with the student, and respect for the other is very important. A SEN student has the right to decide whether or not he wants/needs to share his difficulty. Thus, it is important that the student's decision is respected by the teacher when he becomes aware of it.

In this process of acknowledging the student's SEN by the Boards, teaching and non-teaching staff, the student must be heard and included in decisions regarding his/her future. According to the European Agency for Development in Special Needs Education (2011), students with SEN must be heard when:

- Evaluation process and definition of intervention strategies.
- Learning planning, taking into account personal factors.
- Supportive measures designed to overcome barriers to learning that do not stigmatize or separate them from their peers.
- Learning objectives and with regard to relevant, meaningful and personalized outcomes.

- Assessment of learning outcomes to ensure academic success and general well-being.

## **10. Producing accessible documents**

Web Content Accessibility Guidelines (WCAG) consider essential (Francisco & Sousa, 2011):

- Providing navigational cues to locate content.
- Creating textual alternatives to non-textual content.
- Facilitating hearing and viewing by highlighting the main points.

### **10.1. Creation of web pages**

- Hypertext and hyperlinks with clear and unique terms.
- Avoid using the expression “click here” or include other similar terms on the same webpage (“next”, “ok”, “Cancel”).
- Use different means to highlight, correct or comment on your webpage. Besides color, use square brackets [] and you can even indicate the motive before a highlight (eg Comment, Correction, Warning, etc).
- Use simple tables. Avoid: multiple columns (subdividing table cells), complex tables (tables inside tables) and manual tabs.
- Precede charts and tables with a summary of their content and organization (number of columns and rows, etc).
- Use the captioning and description features for images and other graphic elements.

### **10.2. Creating written documents**

- Page width shouldn't be more than 80 characters per line.
- Align text to the left.
- Opt for Verdana or Arial fonts. Avoid serif fonts.
- Opt for text size 11 or 12.



- For presentations use size 22 or 24. For titles and subtitles use the same or a greater size than the body of the text.
- Spacing between lines should be 1.5; spacing between paragraphs should be 1,5 times greater than the spacing between the lines.
- Use styles to organize the content's structure (chapters, titles, subtitles). Always use heading styles for titles.
- Avoid hyphenation.
- An index is essential and should come at the beginning of the document.
- Opt for a simple background. Do not use watermarks or backdrop images.
- Contrast between text and background: minimum 4.5:1; 7:1.
- To test the contrast in your documents:
  - Download Color Cop.
  - Analyze contrast relation: colors on the web.

### **10.3. Specifications for spreadsheets**

- Describe the general layout, indicating the flow of the text (upwards, downwards or left to right).
- Identify headlines, columns, and rows.
- all visual reading elements must be identified and have a textual equivalent (description).
- If you opt for using color to show information in graphs, guarantee as much contrast as you can.
- Use Windows Magnifier or something equivalent to inverse colors.
- Identify each sheet with a significant and representative name.

### **10.4. Specifications for Presentations**

- Use standard, simple presentation templates.
- Use a simple background with no columns.

- Use descriptive and clear titles for every slide.
- Avoid shapes with text inside.
- Use the notes on your slides to include more detailed information (eg for images, graphs, videos, and slide content).
- You may use animations in your slides.
- Avoid transitions between slides.

### **10.5. Specifications for PDF documents**

- Do not create PDF files from the digitalization of an image.
- Make sure that tables, paragraphs, and sentences aren't separated by breaks between pages.

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