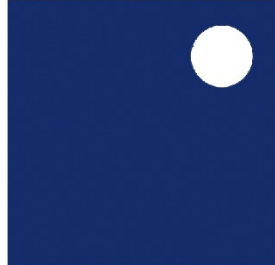# INDIVIDUALIZED CURRICULAR ADAPTATION FOR PEOPLE WITH ALBINISM.2018

GUIDE FOR THE ELABORATION OF AN INDIVIDUALIZED CURRICULAR ADAPTATION OF ACCESS AND THE CREATION OF SPECIFIC TOOLS FOR STUDENTS WITH SEVERE VISUAL DISABILITIES RELATED TO THEIR GENETIC CONDITION OF ALBINISM.

ALBA

www.albinismo.es

Asociación para la ayuda a personas con albinismo

Co-funded by the Erasmus+ Programme of the European Union

ALBA

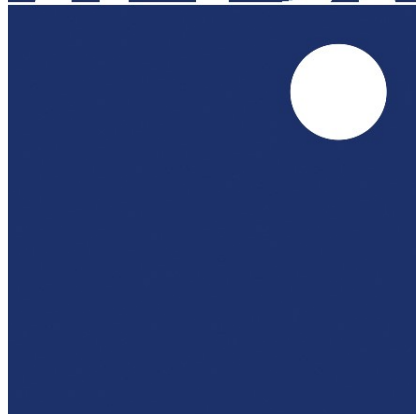www.albinismo.es

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INDEX

I.   INTRODUTION

This guide aims to respond to the need of the educational community to have **truthful and objective information**, based on research and experience on the genetic condition of albinism and the repercussions that can have and how they can affect the access to the study program of students with this condition, in its Primary Education stage.   It includes contributions for the elaboration of individualized curricular adaptations of access that will help that the inclusion of the students with albinism and / or visual deficiency is, step by step, to reality.

The integration of students with the genetic condition of Albinism and / or visual impairment in Primary Education classrooms should lead to **full inclusion, in equity, with**

the rest of their classmates through adaptations that affect the whole class in its whole, and not only the students with this need, and that should be included in the Center's Diversity Care Plan.

This document aims to provide **guidance in the development of adaptive measures to be taken** by schools where students with the genetic condition of Albinism and/or visual impairment are enrolled.

The proposals included in this guide are suggestions that **should be applied continuously and attending to the Diversity Care Plan of the center** so that the measures are implemented as soon as possible to attend the students from the beginning of the school year.

These measures have to be evaluated and subjected to a continuous review process based on the needs and improvements of the students with this need.

In this material we present an example of **"curricular development for the inclusion of students with Albinism through non-significant curricular adaptations"**

Through this Guide we will discover **types of specific adaptations for students with Albinism and a series of specific measures for the different curricular areas, as well as other equally important basic aspects and that these adaptations should be considered as essential for people with low vision.**

The Guide will be **published through the website of ALBA: Asociación de ayuda a personas con albinismo**, which can be reached by any interested person, as well as distributed among all the collaborating entities participating in the Project.

It is the first existing publication on adaptation models for people with Albinism in Primary Education.

2.- ERASMUS PLUS PROGRAM

Erasmus + is the European Union's program to support education, training, youth and sport in Europe.

It covers a period of six years (2014-2020) and seeks to boost job prospects and personal development, in addition to helping education, training and youth systems to promote teaching and learning that equip people with the skills needed for the labor market in the current and future society.

The Erasmus + program aims to contribute to the Europe 2020 strategy for growth, jobs, social equity and inclusion, in compliance with the strategic framework for European

cooperation in the field of education and training ("European Strategy 2020", ET2020).

In this framework, the Erasmus + program has allowed the possibility of **sharing and exchanging experiences, among European countries, related to the educational attention of students with albinism and / or with visual impairment, always from an inclusive model**. The result is made visible through this Guide for the elaboration of an individualized curricular adaptation of access and the creation of specific tools for students with severe visual impairment related to their Albinism genetic condition.

This guide is the result of the project *"TOGETHER WE CAN OVERCOME BARRIERS: Strategy for the equity inclusion of young people with albinism at the center and in the classroom",* carried out by ALBA Association from SPAIN, Danish Association of Albinism (DFFA) from DENMARK, Norwegian Association of Albinism (NFFA) from NORWAY and Albinit from ITALY.

The main objective of this project was the **development of innovation through the elaboration of high quality intellectual products for students with disabilities linked to visual impairment and / or albinism** in the Primary Education stage (ages between 6 and 12 years old), in line with the priorities of the Erasmus + program and the Declaration on the promotion of citizenship and the common values of freedom, tolerance and non-discrimination through education, of March 17,

2015 ("the Paris Declaration").

The ERASMUS PLUS program decided to financially support this aid through the National Agency SEPIE last year 2016. This is the EU program in the fields of education, training, youth and sport for the period 2014-2020.

Work in the fields of education, training, youth and sport can be an important aid in addressing socio-economic changes, the main challenges that Europe will face until the end of this decade, and to support the implementation of the European Political Agenda destined to growth, employment, equity and inclusion.

The program is a very useful tool at European level that **helps to fight the educational inequalities** generated as a result of obstacles and obstacles of students in Educational Centers with SEN (Special Educational Needs).

The efficiency of education and training systems, and policies for youth, provide people with the skills required by the labor market and the economy, while at the same time allowing them to play an active role in society and achieve fullness of personal development.

Reforms in the fields of education, training and youth can reinforce the process towards these goals, based on a shared vision among policymakers and stakeholders, strong evidence and cooperation in different areas and levels.

The Erasmus + program is designed to support the efforts of the participating countries to use the potential of

European human and social talent based on the principle of lifelong learning, linking support for formal, non-formal and informal learning in the fields of education, training and youth.

The program supports actions, cooperation and tools consistent with the objectives of the Europe 2020 Strategy and its emblematic initiatives, such as Youth on the Move and the Agenda for new skills and jobs.

The program also contributes to achieving the objectives of the Strategic Framework for Education and Training for European cooperation in education and training and the European Youth Strategy, relying on open methods of coordination.

This investment in knowledge, skills and competences will benefit people, institutions, organizations and society as a whole, **as it will contribute to growth and guarantee equality, prosperity and social inclusion in Europe and beyond.**

2.1. PROGRAM OBJETIVES:

The Erasmus + program aims to achieve:

- • The objectives of the Europe 2020 Strategy, including the main objective on education;
- • The objectives of the Strategic Framework for European cooperation in the field of education and

training (ET 2020), with the corresponding benchmarks;

- • The sustainable development of partner countries in the field of higher education;
- • The overall objectives of the renewed Framework for European cooperation in the field of youth (2010-2018);
- • The objective of the development of the European dimension in sport, in particular grassroots sport, in line with the EU Work Plan for Sport;
- • The promotion of European values, in accordance with Article 2 of the Treaty on European Union

2.2. CHARACTERISTICS OF THE ERASMUS + PROGRAM

- *Recognition and validation of competences and qualifications:* One of the common objectives of all these tools is to ensure a simpler recognition and better understanding of competences and qualifications within national borders and through them, in all educational subsystems and in the labor market, regardless of whether they have been acquired through academic education and training or in the context of other learning experiences (such as work experience, volunteering or Internet learning).

  The tools should also be geared towards ensuring that education, training and youth policies continue to contribute to achieving Europe 2020's smart, sustainable

and inclusive growth objectives, as well as to achieving their main education and employment goals through more successful integration in the labor market and greater mobility.

- **Dissemination and exploitation of the results of the project:** The diffusion and the use of the results constitute one of the fundamental areas of the life cycle of the Erasmus + project. They offer participating organizations the opportunity to communicate and share the results and materials they have obtained, which will increase the impact of their projects, improve their sustainability and highlight the European added value of Erasmus +.

- **Erasmus+ open access requirement for teaching materials:** Erasmus + promotes open access to the results of the projects to support learning, teaching, training and work in the field of youth. In particular, the beneficiaries of Erasmus + undertake to make educational resources and tools produced in the context of projects financed by the program, such as documents, media, computer programs or other materials, available to the public free of charge and with an open license.

The materials should be easily accessible and obtained without cost or limitations, and the open license should allow the public to use, reuse, adapt and share the

resource. These materials are called "open educational resources" (OER).

- *International dimension:* Erasmus + incorporates a strong international dimension (ie collaboration with partner countries), especially in the fields of higher education and youth.

- *Multilingualism:* Multilingualism is one of the cornerstones of the European project and a clear symbol of the EU's aspirations to unity in diversity.

  Foreign languages play a prominent role among competencies that will help to better equip people for the labor market and to take full advantage of the opportunities available. The EU has set the goal that all citizens have the opportunity to learn at least two foreign languages from a young age.

- *Equity and inclusion:* The Erasmus + program aims to promote equity and inclusion by facilitating access for participants from disadvantaged backgrounds and having fewer opportunities than their peers, when the unfavorable situation limits them or prevents them from participating in transnational activities for reasons such as disability or barriers for health reasons.

- ***Protection and safety of the participants:*** The protection and safety of participants in Erasmus + projects are important principles of the program.

All people participating in the Erasmus + program should have the opportunity to take full advantage of the opportunities offered in terms of professional development and learning. This should be guaranteed in a safe environment that respects and protects the rights of all people.

Photo: Ana Yturralde

3.   PUBLIC TO WHOM THIS GUIDE IS DIRECTED

This guide is designed to help the educational community (especially teachers) in the realization of individualized curricular adaptations and / or access to children with Albinism.

It aims to be a starting point for the realization of the adaptation and in no case can be considered as the final document.

The diversity of students with low vision and in our case with Albinism is very large, as Dr. Lluis Montoliu, CSiC

Scientific researcher focused on exclusivity in Albinism, has expressed on many occasions: "Any person with Albinism sees exactly the same than another with its same condition. "

Each person is unique with its own characteristics derived from its genetic condition, in our case Albinism. This leads us to conclude that both their visual field and visual acuity, although they have common features among all types of Albinism, are specific to each person with this condition.

What leads us to conclude that although this guide offers a model that can be taken as a basis, the final document will be drawn from the suggestions you will find in it and, taking into account the individuality of the student with Albinism, considering their particular limitations.

This guide will help the schools, in particular the tutors of children with albinism and teachers who work with them in the classroom, to situate themselves and think about strategies of access and curricular adaptation of students with low vision, as is the case of people with Albinism.

All these strategies are the result of the experience of various teachers who, at some point, have needed to adapt to a child with Albinism, their parents, low vision professionals and the children themselves that throughout their life in Primary Education stage have needed these inclusive adaptations to perform the same type of tasks as their peers, access the study program at the same time as their peers and successfully obtain the same achievements.

Teachers who need to make adaptations will find in this guide as well as advice a wide range of strategies so that they can choose after their initial assessment, those that fit the reality of their student.

The adaptations are a flexible document that can be modified at any time after its evaluation. In all likelihood, at the beginning of its preparation, strategies and/or measures that do not fully meet the real needs are selected, it is very difficult to put yourself in the shoes of a student with a visual impairment in which the environment influences them, as in the case of people with Albinism: position in the classroom, lighting..., that is why it is very important to be as flexible as the adaptation that is going to be carried out, and to revise it frequently in order to incorporate or eliminate those measures that are required.

Photo: Ana Yturralde

4. PURPOSE AND OBJECTIVES OF THIS GUIDE

Students with Albinism are students who have specific educational support needs, that is, students with SESN. For them, European education systems offer the necessary means to face their needs and support their learning through access and curricular adaptations that will make it easier for them to follow the study program of the subjects the same way the rest of the students do it, but with the modifications that are considered opportune to attend to their difficulties and facilitate access to these learning.

This guide aims to offer various quality strategies that respond to these specific needs of students with Albinism and that will help teachers and members of the educational community to choose among several suggestions those that best suit the reality of their students.

In this curricular development you can find suggestions based on the experiences of working with students with Albinism of different professionals, as well as the own experience of people with Albinism that throughout their educational stage have needed adaptive measures of this nature.

The objectives of this guide are inclusion through adaptation strategies, strategies considered as a decision-making process on curricular elements, access elements or basic elements (objectives, content, methodology, learning and evaluation strategy) intended to give educational responses to the needs of students.

Within this purpose, the following principles should be taken into account:

- *Standardization principle:* The last reference of any curricular adaptation is the ordinary curriculum. It aims to achieve the objectives through a standardized educational process.

- *Ecological principle:* the curricular adaptation needs to adapt the educational needs of the students to the most

immediate context (educational center, environment, group of students and concrete student).

   - *Significance principle:* When talking about curricular adaptation, reference is made to the adaptation of the elements within a continuum that ranges from what is not significant to what is very significant. Thus, we would begin by modifying the access elements, to continue, if necessary, adapting the basic elements of the study program: evaluation, methodology, etc.

   - *Principle of reality:* In order to make a curricular adaptation feasible, it is necessary to start from realistic approaches, knowing exactly what resources we have and where we want to go.

   - *Principle of participation and involvement*: Curricular adaptation is the direct responsibility of the tutor and the rest of the professionals who work with students with special educational needs. Decision-making, the procedure to be followed and the adoption of solutions will be carried out in a consensual manner and the agreements will be reflected in the corresponding adaptation document.

   By way of conclusion we can say that this curricular development will facilitate the development of adaptations for children with Albinism serving as a guide and offering specific and inclusive strategies.

5. PRELIMINARY ASPECTS

Students with Albinism are students included in ordinary education, with specific needs for educational support (SESN) and therefore students with specific need for educational support.

Early detection is very important for rapid intervention. Since the incorporation of these students to the school, the teaching team is responsible for them to move forward with the necessary help, and it is their responsibility to act quickly and effectively so that students with Albinism feel identified and understood in the difficulties they face day to day.

The teaching team will be coordinated by the tutor and will involve the professors who intervene in the classroom, and the personnel assigned to the educational guidance functions; It will also coordinate the contributions made by parents and

low vision technical professionals and will be in charge of notifying the non-teaching staff of the center of the difficulties of this type of students and the measures that should be taken with them in the event that they are users of certain services of the center: dining room, courtyards, secretary...

Before making any decision and applying any measure of support and reinforcement, an initial or prior assessment will be carried out to detect the needs. This information will allow you to organize the type of educational response appropriate to their specific needs, answer that allows them to achieve the objectives established in the study program. In no case will the evaluation have a discriminatory nature nor will it aim to delve into the limitations or make some sort of classification, but to determine the help they require so that they can advance in the least restrictive school context possible.
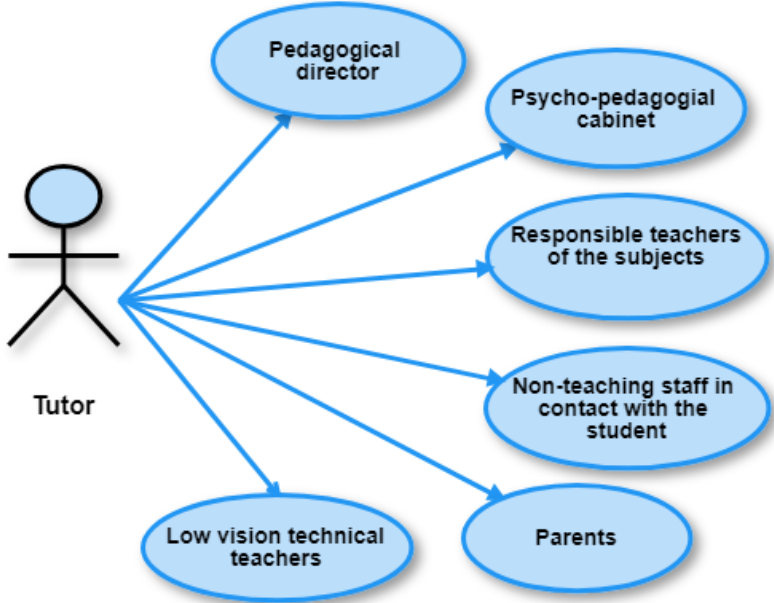
Figure 1. Coordination in the attention of students with educational support needs

It is very important to start from the educational inclusion being coherent with the current educational proposal of attention to diversity to be able to:

- Ensure the development of these students.
- Favor equity.
- Promote social cohesion.
- Give an educational response to students who need it.

The type of measures to be adopted will be those that will provide adequate and specific responses to the needs derived from the low vision of children with albinism and the difficulty of accessing information through the sense of sight. These may consist of curricular and/or organizational changes.

It should be borne in mind that not all children with Albinism have the same field and visual acuity and, although they will probably have common measures among all those selected for this sensory disability, there will also be more specific ones that will be adjusted individually to their residual vision.

In addition to the ordinary study program there is a whole series of specific contents for the visual disability that must be addressed in order for the development and evolution of this students to be successful. The objective is to adapt the teaching to the characteristics and needs of each student so that they can access the ordinary study program with the minimum possible modifications.

This table gathers in a very generic way the functions of the Educational Community:

Tutors.	- Flexibility of grouping according to activities. - Teamwork with specialist and support staff, specialized professionals, non-teaching staff… - Communication with parents. - Collect the necessary information.
Technical Team for Pedagogical Coordination	- Ensure and enable the flexibility of schedules and the use of existing human resources in the center for attention to diversity.
Center orientation team. (Psychopedagogical Office)	- Organization and distribution of functions based on the curricular adaptation made
Other professionals	- Coordination with the teacher-tutor. - Assumption of their competences and responsibilities in the attention to the SESN.

Figure 2. Functions of the members of the educational community in the care of students with educational support needs.

Parents are a very important source of information that tutors should not discard, they know first-hand the genetic condition of their child and can provide many relevant data when making pedagogical decisions. In addition, their support is absolutely essential so that some of the adaptations that will arise can be carried out in a coordinated manner.

It is also necessary to talk with low vision professionals, in the bibliography you can find how to contact them with the links of European institutions or organizations. They will offer their experience in this field and their recommendations to make the necessary adaptations to students with albinism.

The teaching team, in particular the tutor, is responsible for gathering the information of all the people involved and making the decisions after the advice received.

It is important that there is good coordination among all the stratums and that it is fluid and bidirectional so that the student with Albinism feels that the effort and the adaptation measures are not only plausible in the classroom but also outside the classroom, in the courtyards, in the dining room, during the outings, at home…

6. TYPES OF INTERVENTION

At the time of making a specific intervention for students who have visual impairment, we must rely on current legislation. Each country has its own educational laws although all of them converge on the same principles:

- The importance of the student with **SESN** (specific educational support needs) as a unique being with support needs specific to their disability.
- Need to adapt the access route to information.
- Promote equity and ensure the proper development of these students.
- Develop specific content to create learning strategies to compensate and improve their low vision.

- Equality and respect for diversity.
- Personal autonomy and accessibility.
- Participation of all sectors of the educational community.
- Teachings with globalized approaches.
- Functionality of the learnings.

Education, in Europe, has been shaped over time in a basic right that reflects the principles of equity, quality, inclusion, equal access, permanence, promotion, selection and social participation present in our society.

Starting historically from, in the past, segregationist, differentiating and sometimes excluding models, we have been progressively orienting towards new, fairer, more egalitarian and inclusive educational models, a reflection of a new social model.

"The principle of inclusive education is to adapt the learning processes to each individual, so that it is possible to achieve the maximum performance of each person, with different characteristics and capabilities; it is opposed, therefore, to the segregation of students with disabilities in special education centers. Inclusive education implies an active effort in favor of social cohesion and integration, an effort that usually translates into important investments in

terms of teacher training, support teachers, facilities and materials" (1)

The Convention on the Rights of Persons with Disabilities of the United Nations (United Nations, 2006), signed by the European Union as such and, in addition, ratified by practically all of its member states, explicitly supports inclusive education; recently renewed this commitment in 2015, in the World Education Forum through the Declaration of Incheon (Korea).

In all the countries collaborating in this project (Denmark, Spain, Italy and Norway), the inclusion of all students in ordinary centers is guaranteed, providing specific support (material, personal, methodological adaptation, etc.) for each student who needs it.

The introduction of these specific supports is justified by the elaboration of a specific intervention plan for the student, in Denmark for all the students and in the rest of countries only for those who present specific needs for educational support as is the case of students with albinism.

The elaboration of the intervention Plan, which may have different names according to the country, is the responsibility of the educational center who will do it with the advice of resources and specialized professionals in each need.

Said Plan will include all the necessary access or curricular adaptations so that students can access the information to carry out the tasks entrusted with the necessary support measures to facilitate their execution.

The support can consist of material, endowing the center for its use by and for the students and/or with the total or partial presence in the classroom of a specialist teacher who will work in a coordinated manner with all the professionals included in the intervention Plan.

The training of all professionals is essential and is accompanied by continuous training; this can be done through competent bodies in the field of education, collaboration between professionals from different educational centers and with external institutions specialized in visual impairment.

In most of these countries specialized resource centers and support services have been created, in our case in the visual deficiencies, to which the ordinary centers go in search of orientation in the design of the specialized intervention plan of the students, search of material or personal resources, pedagogical support and coordination. Teamwork and coordination is essential to ensure a quality education and adapted to the special needs of our students, being a factor that facilitates the real inclusion of students with visual impairment related to the genetic condition of albinism.

The financing of all these resources always comes from the Central Governments, in some cases there is financing from local entities, in others there is a combination of central and local funding.

The types of curricular adaptations that will be included in the individualized intervention plan of each one of the students with Albinism and/or visual impairment are diverse and can be applied; It is very important to know them and know how to choose the one that best suits the needs of the student, to achieve a correct learning.

We understand curricular adaptation as any adjustment or modification made to the common educational offer in response to the needs of students with SESN, in response to diversity and inclusion.

In the case of students with Albinism and/or visual impairment, the appropriate ones are:

- ***Individualized non-significant curricular adaptations,*** are those in which, in the Primary stage, the elements of the ordinary curriculum are modified, such as:
  - Organizational resources
  - Timing
  - Methodology
    - Types of methodologies.
    - Evaluation techniques and instruments.
    - Organization of objectives and contents.
  - Activities

However, there is a type of non-significant curricular adaptation that, although it modifies some aspects of the basic elements of the study program, does not affect the substantial.

- *Access adaptations,* are those that modify the types of resources according to the needs:
  - Technical resources or materials: will contemplate the elements ICT's, apps, and optical aids necessary for the development of the student and the performance of their learning activities. That is, they are adaptations of access to information, how they will access it and what materials they need for its access.

    Human and organizational resources: types of groupings in the classroom, the center's psycho-pedagogical office, supports and reinforcements, professor of therapeutic pedagogy, Associations linked to low vision...

Together with these, although they do not directly respond to the needs derived from the visual disability, there are also the *Significant Individualized curricular adaptations,* that are those in which the adaptation affects the basic elements of the official curriculum by modifying general objectives of the stage and the areas, basic competences, basic contents of the different curricular areas and evaluation criteria. In the case of students with Albinism

these adaptations should not be made unless they have, in addition to the genetic condition of Albinism, some other type of added difficulty.

Once the type of adaptation is determined, we must take into account both the material resources and the support that will be carried out to achieve the full development of said student. Advice will also be requested to:

- The counseling department providing a report with the results obtained in the psychopedagogical evaluation.

- Organizations specialized in blindness and low vision or, otherwise, to listen to Albinism associations in each country, as in this case they have more information and know first-hand the characteristics of this condition.

In the specific case of Spain, the ONCE (national organization of Spanish blind people) and ALBA (Spanish association of help to people with albinism) are the most recommended entities. In the rest of the collaborating countries there are also organizations and associations that can be visited. Interested persons can find in point 13. Bibliography of this guide the data of these and other European associations that are dedicated to helping people with Albinism as well as European organizations that serve people with blindness and/or low vision.

Photo: Ana Yturralde

7. ASPECTS THAT SHOULD COLLECT AN ADAPTATION FOR A STUDENT WITH ALBINISM

When we have a student with albinism, an adaptation must be made that is adapted to his/her specific needs derived from his/her sensory deficiency: low vision.

It is worth remembering that there are many types of albinism and that each person with this condition has different residual vision, we can not generalize, so it is important to talk with the low vision specialists that the student has close as well as with the family, since they are an inexhaustible source of knowledge.

Figure 3 shows the two types of adaptations that can be carried out with the different aspects that must be taken into account at the time of their realization.

After it we will go deeper into each of the aspects in order to deepen them.

ADAPTATIONS
OF ACCESS
1. Technical or material resources
Adaptation of access to information
Activities, ICTs, Apps and Optical aids
2. Human Resources
PT, Psychologist, Professor of support, Association of low vision.
INDIVIDUALIZED CURRICULAR ADAPTATIONS
1. Activities.
2. Timing.
Extra time in exams and activities.
3. Methodology.
Objectives and Contents, Evaluation and Methodology.
4. Organization.
Lighting, Mobile and fixed elements, Spaces, Classroom location.

Figure 3: Conceptual map of curricular adaptations

ADAPTATIONS OF ACCESS (I)

Technical resources and materials:

It consists of an Adaptation of access to information, that is, what kind of instruments or activities should we incorporate into the classroom so that our student can access at the same time the information that is provided to their classmates. In order to provide the necessary help we need to know all the optical aids, ICT's and apps needed to facilitate access.

- Simplify, add or delete information for activities.
- Reduce the amount of activities for home to strengthen the study.
- Prepare the activities in advance to take into account the resources that will be used and prepare them before use with the necessary adaptations.
- Have sufficient and adequate teaching equipment and resources.
- Design and develop materials that are not on the market, as this student requires PDFs (own or provided by the publishers in use) and audios to work understanding and facilitate the study.
- Install the specific equipment to meet the SEN (Special Educational Needs): ICTS as:
  - Digital boards
  - Monitors connected to the whiteboards

- - Audiobooks …
  - Magnifiers
  - Apps like good notes, mind mapper, Popplet lite that allows the use of zoom
- Incorporate useful resources for the student.
- Non-optical auxiliaries: types of guidelines, lighting.

Optical materials: Ipad or similar tablet with appropriate zoom, monitor, keyboard

ADAPTATIONS OF ACCESS (II)

Human resources and their organization:

We must take into account the human resources that we have available to be able to carry out all the programmed measures and assign them so that the schedules and the timing of them are established...

- Psychologists, professor of therapeutic pedagogy and pedagogues.
- The coordinator will be in charge of the tutor and will be in charge of transferring the pertinent information to all the staff that works with this student.
- Support teachers.
- Support and monitoring of educational work by the family.

- Support and follow-up by the specialist teacher of the Specific Team of Educational Care for people who are blind or have low vision.
- Support of the Albinism Association to which the student belongs.
- Encourage a climate of trust and maintain a fluid relationship with the family and those responsible for the Specific Team for Educational Services for people who are blind or have low vision.
- In group work, foresee that she/he may need more time to carry out some activity and there will be others that she/he will not reach successfully. Prepare the group or direct the distribution of activities

ICA: INDIVIDUALIZED CURRICULAR ADAPTATIONS

With the ICA we must contemplate all those aspects related to the evaluation, the most appropriate methodology, the activities to be carried out, the timing, as well as the organization of the spaces.

All these aspects must be included in a document that reflects the need for which this measure has been considered, as well as the measure to be carried out in all these aspects to ensure optimal learning and student autonomy.

ICA (I)

ACTIVITIES

In order for educational content to reach all students on equal terms, regardless of their abilities, it is necessary that they are adapted to be accessible. In the case of students with visual disabilities, it is necessary to adapt them so that they can perceive them visually, by means of optical and non-optical aids, and also to be supported by the rest of the senses.

Technological and digital advances, and their ability to magnify and visually bring information closer without losing resolution, have meant a great advance in the access, inclusion and normalization of students with visual disabilities in the classroom. Even so, there are other educational resources for all students, which can complement. Some of them are:

In Mother tongue and Foreign Languages.

- Guidelines of different thicknesses and sizes for the learning of reading and writing, always with a good contrast
- Syllabic cards to form words for building words and phrases
- Simplification of images to work vocabulary
- Avoid activities of relating images and words since the affectation in the visual field increases their difficulty
- Substitution of long texts by auditions of these.
- Monitor activities related to images since the details usually go unnoticed.

In the **Scientific-Mathematical area.**

- Calculators with very large, digital or talking keys
- Coins and bills adapted to reality
- Collections of relief sheets (human body, the solar system ...)
- Measuring jugs with contrast
- Digital meter or Rule with very large and well contrasted numbers.
- Adapted angles meter
- Units of measure tables
- Compass with adapter for pencil or thick-felt

In the **Artistic Education Area.**

- As it is common to work on material with a white background, avoid using the yellow color due to the low contrast it produces and, consequently, the lack of visibility.
- Provide models, for the copy, adapted and with enough contrast.
- In music, in cases where the student does not access the scores, give the musical notes of the melody to memorize them.
- Give priority to the learning of the melodies and musical scale in stringed instruments against the wind ones.

In the Area of Natural Sciences and Social Sciences.

- Three-dimensional reproductions (models, volcanoes,)
- Collections of relief sheets (human body, the solar system...)
- Material in relief for the social environment: giant maps, atlases of geography, globe in relief, atlas of history, illustrations and schemes.

In the area of Physical Education.

- Contrasting materials
- Sound and light balls
- Clear differentiation, in team games, of the members of the opponent through breastplates or other visible materials
- Signaling the points of a circuit or route with keys
- Use of sound cues by the teacher to guide the movement or the routes
- In persecution games clearly differentiate the student in charge of this action
- In basket games, to teach previously, to the students with visual incapacity, the space of game
  At the time of explaining an exercise or movement it can also be useful for the teacher to take as a model the student with visual impairment so that the student internalizes the movement, even if he does not see it.

ICA (II)

TIMING

- Temporary dedication to each area and activity may vary depending on the need, sometimes the learning tempos are different from those of their classmates.
- The adequacy of time in the classroom, for some activities that require more difficulty for them, it is important that they know that they have more time.
- The increase of time for the realization of exams, can have a 50% of extra time in the exams.

ICA (III)

METHODOLOGY

- Organization (groupings, spaces and timing).
- Teaching procedures (new strategies, sequences).
- Activities (modification of some and introduction of others).
- Resources (adaptation and introduction).
- Notify the family of the exams at least one week prior to their completion. Help them to prepare it at home as these students invest much more time in the study than their classmates.
- Prepare in advance the methodology of work in memorization tasks to be able to address them with more time.

Activities outside of the classroom: Provide the student with enough information about the elements that are beyond her/his visual reach (provide, whenever possible, during visits outside the school, the request for authorization so that they can approach the objects, excess light, use of their iPad as a magnifying glass …).

ORGANIZATION OF OBJECTIVES AND CONTENTS

- Prioritize the contents and objectives.
- Change the sequence of presentation of contents.
- Delete/add some content and objective, without much difference.

EVALUATION

- Adaptation of adequate evaluation techniques and instruments: Oral, written tests adapted…
- Data collection channels for evaluation…
- Recommendations for exams:
    - More time for their realization.
    - Substitution of some exercises by others with different processes but the same objective that do not require so much visual skill.
    - Eliminate the number of questions to avoid prolonging the time of excess performance.

ICA (IV)

ORGANIZATION

- Access to the center and movement through it: elimination of barriers to avoid accidents.
- Furniture layout and regularity in its placement so that they are always a reference facilitating mobility
- Adequacy of spaces, both for group and individual work.
- Physical conditions of spaces: lighting, sound and accessibility.
- Interactions between personal elements.
- Accessibility in the school center. It is convenient that the student knows the facilities beforehand.
- Previous knowledge by the student of the spaces of the center:
  - "Fixed elements": location of columns, windows, holes;
  - "Mobile elements": location of tables, bins, furniture. They should always be advised with some anticipation.
- Location of the student in the classroom:
  - This should be placed close to the teacher, thus being able to appreciate auditory cues that provide the student with information about their environment, essential for their orientation in the medium.
  - It must be spacious to accommodate the optical or

technological aids they need.

- With their backs to natural light, taking care of the reflections and/or glare that they may cause in technological devices that are used daily and protecting them from photophobia.
- Take care of the grouping criteria in the classroom so that the student is not isolated and favors their integration.

Physical space to carry out the support by the support teacher, who must follow the same considerations as the classroom in which the daily activities are developed.

8. OTHER ASPECTS TO BE TAKEN INTO ACCOUNT WHEN CARRYING OUT INDIVIDUALIZED CURRICULAR ADAPTATIONS (ICA)

There are other aspects that should be borne in mind and assess their incorporation in the individualized curricular adaptation (ICA) according to the needs of our students. Sometimes they are activities that we forget that are already taken from lower courses and are part of daily life, but when we raise them in the class we discover that these students are not able to perform them correctly if they do not have their own adaptation.

SPECIAL DIFFICULTY ACTIVITIES

- *Crosswords: replace the activity with another with similar objective.*

- *Location of words in texts (provided that it is not about recognizing learned categories or concepts: verbs, adjectives...)*

- *Columns to relate: try them to be close to each other or substitute another activity*

- *Multiple activities that have a text or common element and that require from the student continuous up-down movements to consult it. Repeating the text or element is a good alternative.*

- *Search for details in global drawings.*

- *Correct writing of words in languages: you will need more acquisition time.*

ORTHOGRAPHY

- *When passing from reading to audio, much of the acquisition of the internalization of spelling is lost. It should not be taken into account at the same level than their colleagues but you should increase the spelling requirements progressively.*

GRAPHIC ACTIVITIES

- *Accuracy will not be required neither in the line nor in the measurements, but the student will know the procedure for each execution and will be able to interpret the graphic activities that are presented.*

PREPARATION OF MATERIALS AND TEXTS

- *Avoid including drawings or photos in gradation of grays (replace with a clear and color image of the same element).*

- *Use Arial and Verdana fonts size 12-14 for ipad not for paper, with adequate separation between them.*

- *Provide a sufficient background-figure contrast (avoid photos of texts as much as possible)*

- *The lines should preferably be short to facilitate reading and avoid the continuous left-right movements.*

9. REALIZATION OF THE CURRICULAR ADAPTATION

Once we have seen all the aspects to take into account to make the adaptation to the student with Albinism and/or visual impairment, it is convenient to make a document that includes all the aspects.

In Europe, educational policies guaranteeing the principle of inclusion are committed to providing specific support so that each student who needs it, as is the case of students with Albinism and/or visual impairment, can access the contents of learning on equal terms with the rest of the students.

These supports will be included in the specific intervention plan for the student, as is the case of students with albinism, and that will be reflected in the diversity care plan.

This intervention plan, which may have different names according to the country, is the responsibility of the educational center who will do it with the advice of resources and specialized professionals in each need.

The support may consist of a material resource and/or a human resource that will consist of the total or partial presence in the classroom of a specialist teacher who will work in a coordinated manner with all the professionals included in the intervention Plan. His/her support will focus on direct support to teachers. What never includes, unless the case requires it in a specific way, is the

elimination of the objectives and contents of the study program or the reduction of these.

Adaptation must always follow the principles of accessibility, flexibility and inclusiveness.

The training of all professionals is essential and is accompanied by continuous training; It can be done through competent bodies in the field of education, collaboration between professionals from different educational centers and with external institutions specialized in visual disability.

Each educational center has its own models, and they meet the requirements established by each Organism with direct competence in educational matters both at a general and local level, and that ensure compliance with the principle of inclusive education, and that consists of adapting the processes of learning to each individual so that it is possible to achieve the maximum performance of each person, with different characteristics and abilities, opposing, therefore, the segregation of students with disabilities in special education centers.

Despite consulting many sources on access adaptations to the study program, no specific source has been found with a formal model proposed by the institutions of each country, only in Spain, in the Valencian Community the DOG proposes a model of access adaptation to the study program.

So we can deduce that there is no common model neither in the different communities of Spain, nor in the different European countries with which we have collaborated to make this guide, but all agree on the data

that we must take into account and collect the time of its preparation.

The document must always be accompanied by the signature of the tutor and the Psychopedagogist and accompanied by a psychopedagogical evaluation of the special educational needs to validate the request for the adaptation of access to the study program.

These data are:

9.1. INITIAL DATA

- Name of the school
- Location
- Name and surname of the student.
- Grade that the student is enrolled and letter if it's the case.
- Date of birth and age of the student.
- Name of the parents or guardians, family address and contact telephone number
- Observations: In this case the type of albinism that the student has, his sharpness and visual field would be included.
- Name of the tutor.

9.2 GENERAL INFORMATION

- *Health problems or difficulties:* Here we would include their visual problems and the difficulties they face derived from their condition that may affect their school learning, such as:
    - o Low vision
    - o Absence of peripheral vision
    - o Difficulty distinguishing objects and sources in the absence of contrast.
    - o Reduced visual field.
    - o Visual acuity compromised.
- *School problems:* difficulties derived from his/her vision regarding his/her interaction with the school environment, especially with the teachers and his/her classmates. Here you could describe the difficulties they have in distinguishing teachers and classmates, the need for support people…
    - o See the blackboard and follow the explanations.
    - o Access to information if he/she is not previously prepared for his/her vision.
    - o Amount of increase needed…
    - o Use of ICT to carry out the same work pace as colleagues: monitors, tablets…
    - o Study…
- *Family and social difficulties:* separated parents, single-parent families... Data related to family coexistence and social interaction that influence their school learning.

9.3 COMPETENTIAL LEVEL

- Indicate in each area or subject the contents that he/she has acquired, of which they are capable and the difficulties that arise corresponding to the grade they are doing.

9.4 COGNITIVE CAPACITIES AND LEARNING STYLE

- Specify the cognitive and manipulative skills of the student
- Habits and work pace
- Learning comprehension and generalization strategies.

9.5 OTHER FACTORS TO BE TAKEN INTO ACCOUNT

- Attitude of the student
- Motivations and interests.

9.6 ADAPTATION PROPOSAL

- Specify that the adaptation is made for educational needs derived from conditions of sensory disability that prevent the use of ordinary means of access to the education system
- This proposal must include the five aspects detailed above and included in the outline.
- Here you must specify all the adaptations of methodology, autonomy, study program, timing and human and material resources that a person with albinism needs.

10. MODELS OF CURRICULAR ADAPTATION

In almost all the European countries that have collaborated in this guide, we find that there are specific curricular designs for attention to diversity inside and outside the classroom. Some, like Italy, have expressed this in legal terms, changing their educational approach to offer more answers within ordinary education. Of course, in all participating European countries, their perspectives are closely related to the current European position of inclusive education.

All these countries defend the view that the general curriculum framework should cover all students and that, of course, it may be necessary to make some specific adaptations, including specific resources within the ordinary school, and that will be articulated through an individualized intervention plan that includes an adaptation of access or a curricular adaptation.

The use of curricular adaptations is one of the current trends in Europe: use this individual document to specify the specific needs of students, their objectives and means and to detail the degree and type of adaptations to be made in the ordinary study program, as well as to evaluate the progress of the students involved. It can also serve as a "contact" between the different "actors": parents, teachers and other professionals.

According to the descriptions of the countries, it is clear that, in almost all of them, the individualized curricular adaptation (ICA) plays an important role for the attention of the special needs in the most inclusive way.

Searching in publications we have found a diversity of models that collect different types of adaptations made to a student with characteristics different from the population to which we address, but in all of them despite having a different format they have common sections.

Models found on the internet.

http://en.calameo.com/read/001346807ba304e51e98a

https://doluisdegongora.wordpress.com/2016/09/12/modelo-de-adaptacion-curricular-individual/

https://sites.google.com/site/apoyoeducativorodanas/000-proyecto-somos-iguales-y-aprendemos-diferente/3--elaboracion-de-adaptaciones-curriculares

http://noticias.juridicas.com/base_datos/CCAA/va-o140305-ced.html

https://www.slideshare.net/rosamariamartinezmartinez395/modelo-aci-34681764

https://es.slideshare.net/bgonzalezvivas/aci-48571456

https://es.slideshare.net/bgonzalezvivas/udi-santo-angel

https://www.google.es/search?q=ACI+de+acceso+al+curriculo&source=lnms&tbm=isch&sa=X&ved=0ahUKEwi4sra5gsDVAhWTDRoKHcwRCpQQ_AUICigB&biw=1920&bih=950#imgrc=X3TmZ1EFITLlJM:

https://es.slideshare.net/patriganzo/acitdah-en-infantil

https://es.slideshare.net/SuperPete/106838-modelo-plandetrabajoindividualizado

https://digitalcommons.hsc.unt.edu/cgi/viewcontent.cgi?referer=https://scholar.google.es/&httpsredir=1&article=1030&context=disease

https://books.google.es/books?hl=es&lr=&id=WVatPjZmH9EC&oi=fnd&pg=PP1&dq=how+to+create+an+adapted+curriculum+&ots=sJyHR_fRED&sig=T1n92c6ts44NloBPK7pyIFZAhyw#v=onepage&q=how%20to%20create%20an%20adapted%20curriculum&f=false

https://books.google.es/books?hl=es&lr=&id=aNUi-xT-3B0C&oi=fnd&pg=PA1&dq=how+to+create+an+adapted+curriculum+&ots=JZDY4a6JMT&sig=rJPvbZg7vTRCxJifJL5NvRUCFUI#v=onepage&q=how%20to%20create%20an%20adapted%20curriculum&f=false

https://books.google.es/books?hl=es&lr=&id=EL8U4nA4QywC&oi=fnd&pg=PR15&dq=how+to+create+an+adapted+curriculum+for+kids+with+visual+enviroment&ots=zgQruBszHu&sig=EIPNAxUlpmvh0Dk5duzcrcAIOg8#v=onepage&q&f=false

The registration model that we propose is the one that we detail below; to include the school logos is important to confirm its validity and give accuracy to the document.

This document is the result of research in European educational laws and models through the experience of different professionals in education and the experience lived by students with Albinism. It is an example of what an

adaptation should be, in no case should it be taken as a single model. It is the document from which you can choose the strategies and measures that best suit the student with albinism in our center among all its proposals.

It is open and flexible due to its continuous revision nature, that is, the document must be reviewed frequently.

In the initial process of elaboration the choice of measures will be based on the initial tests and records and previous information.

As the course progresses it is possible that some of the measures that we propose at the beginning are no longer necessary or need certain modifications, that's why the continuous review is so important.

SCHOOL CENTER

ADAPTIVE MEASURE.

	NON-SIGNIFICANT CURRICULAR ADAPTATION
	OF ACCESS TO THE STUDY PROGRAM

Name of the student:

………………………………………………………………………………

School year:…………………….Grade:……………………...

Professor/Tutor:

………………………………………………………………………………

Responsible for Educational Guidance:

………………………………………………………………………………

Expected duration:…………………...

General Information

Student:

....

School Center:...

Location:..

Date of birth:.........................Age:............

Name of parents/guardians:

....

....

Family address:

....

Telephone contacts:...
E-Mail:..

Observations:
Student with albinism OCA type____ with difficulties of access to the study program derived from his condition of sensory disability.

JUSTIFICATION OF ADAPTATION

The curricular adaptation, will be understood as any adjustment or modification that is made in the different elements of the common educational offer to respond to the individual differences of the students, has as purpose:

a) Address the diversity of students in an environment of educational normalization.

b) Satisfy the individual or collective needs presented by the students.

c) Facilitate that each student can achieve their objectives -although they differ from those of the group- with the highest possible degree of participation in the general dynamics of the classroom.

d) Prevent the emergence or intensification of special educational needs through an appropriate educational approach.

The non-significant curricular adaptation of access to the study program will tend to the students to reach the general capacities of the stage, according to their possibilities.

Initial Data.

I.   *Health problems or difficulties.*

Albinism.

Type of Albinism:

Nystagmus:

Photophobia:

Visual field:

Visual acuity:

Others:

Difficulties derived from his/her condition:

- Low vision
- Absence of peripheral vision
- Difficulty distinguishing objects and sources in the absence of contrast.
- Reduced visual field.

2. School problems:

Faculty:
- Difficulty in physically distinguishing teachers and the spaces in which activities are carried out.
- Need for educational support and follow-up.
- Coordinator figure (tutor) that controls and informs the rest of the teaching staff.
- Pre-selection of the student's classroom so that it meets the necessary requirements for a good incorporation.
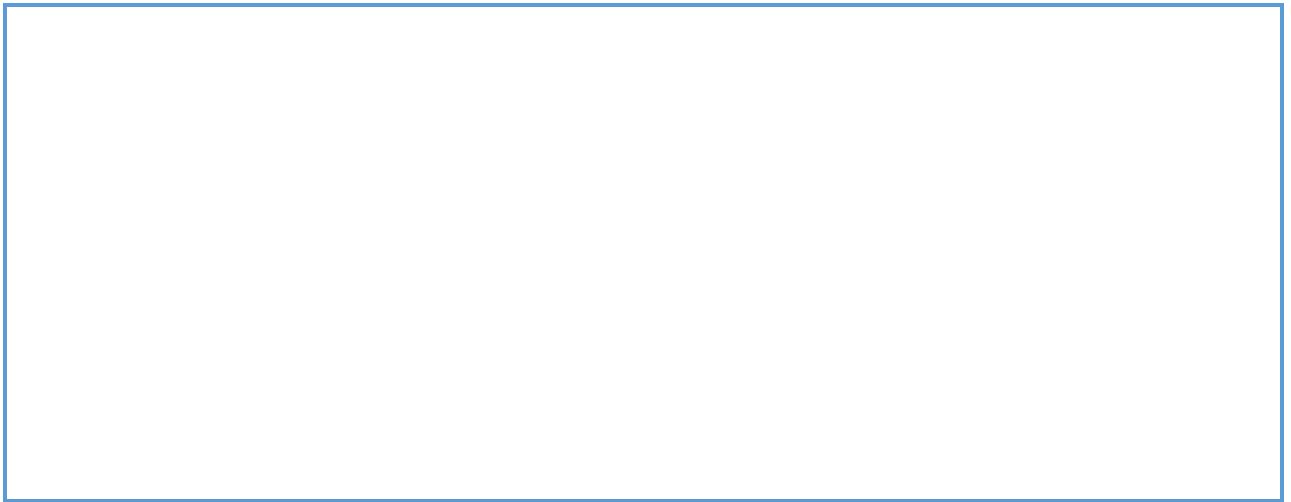
Classmates:
- Difficulty in physically distinguishing his/her classmates
- Need to have reference classmates and support when carrying out some activities.

Difficulties derived from their condition:
- Difficulty locating the classrooms, if they are mobile
- In group activities difficulty to distinguish them or to carry out some activities and this can cause conflicts
- Problems to follow explanations if they require graphic support.
- Impossibility of using the same book format/photocopies ... that their classmates
- See the blackboard and follow the explanations.

3.   Family and/or social difficulties:

Family:

Social:
- It can appear social rejection derived from:
    - His/her physical appearance.
    - The attention by the teachers.
    - The amount of technical resources they need daily.
    - By relating less or not recognizing at times their classmates.
- Need to use resources that the family or the Center can not provide

4. Psycho-pedagogical aspects:

Behavior in the Classroom:

	Attentive		Fast		Distracted
	Motivated		Independent		Demotivated
	Responsible		Carefree		Slow (in the task)
	Reflexive		Impulsive		Dependent (in the task)

Behavior and personality:

	Introverted		Calmed		Extroverted
	Shy		Respectful		Adventurous
	Obedient		Adapted		Aggressive
	Confident		Restless		Insecure
	Disrespectful (with the rules, with others)				Unadaptability (to the class group)

Relationship Family/School Center.

Of constant collaboration	
Of collaboration only when the Center demands it	
Of constant demand by the parents	
It has not been possible due to:	

5. ACADEMIC DIFFICULTIES DERIVED FROM THEIR CONDITION TO TAKE INTO ACCOUNT WHEN CARRYING OUT THE ADAPTATION:

- The way of perceiving the world of a child with low vision is not equal to that of a sighted child.
- The school must respect the evolutionary specificity of the blind, through didactic performances that guarantee the normalization of the subject, with the environment. Low vision supposes a qualitative and quantitative decrease of the information that the subject receives from the medium.
- It presents difficulties in learning by imitation, so we must use techniques based on non-visual aspects, for this type of learning.
- Excessive effort to read, even short texts
- Difficulty accessing their own writings, with the consequent lack of control over them.
- Maintenance of awkward and harmful postures when reading or writing.
- Excessive reading slowness.
- Deficient calligraphy
- It is essential to make clear the rules regarding the order, type and time of intervention in communication situations: take turn to speak, moderators...
- The reality that is referred to when giving orders: terms like: there, this, that, he... do not provide information.

- The pace, both in the elaboration and in the interpretation of graphic representations, will always be slower.
- Precision and formal presentation, should not be valued from generalized criteria the importance of verbal support, which will be essential to strengthen it in his/her work or alert him/her about possible mistakes, both during the process of interpretation and preparation.
- Knowing, manipulating, representing and internalizing a wide range of resources will be reflected in the development of their capacity for abstraction, in the elaboration of generalization strategies and in the construction of more complex natural categories.
- It presents problems to generalize and form categories, because the experience they have with the real world is still very limited.
- A child with a visual impairment thinks that everyone sees the same things as him.
- The non-acceptance of visual impairment, on the one hand and the impossibility of learning gestures and reactions through imitation by another, determine situations of isolation or social incompetence.
- The study program should contain the same educational objectives, emphasize cognitive, socio-emotional and motor development, self-image, language and communication. It stimulates the acquisition of a positive self concept, healthy attitudes and independence.

These objectives also serve as the basis for the child's study program.

- The lack of progress in a student should not be considered as a failure but rather as a need to find the appropriate educational method to meet the individual needs of the child. Therefore, the best practice is to carefully and systematically control the child's attitudes and the educational methodologies applied within the classroom.

- It is also very important to count on the help and intervention of the peers, the classmates, who will gradually get to know the student with visual impairment and learning how they can participate together in their inclusion. It is very important to think that the presence of a student with visual disability in the classroom is beneficial for the rest of the students due to the values that they transmit, the need to use diverse materials, etc.

- Peers must learn to respect differences, adapt games so that everyone can participate, and value the specific material of students with visual disabilities. All this is important so that social and educational inclusion is a fact.

6.   ADAPTATION:

ADAPTIVE ACCESS MEASURES

Human Resources	Yes	No
It has to use alternative means to the usual ones for the fulfillment of the different curricular objectives.		
Verbalize what is written on the board avoiding the use of the traditional one		
Reiteration in the presentation of information.		
Encourage the student to participate in class and to interact with their classmates.		
Consider the support teacher as an essential element inside and outside the classroom, with which he/she must cooperate and coordinate continuously.		
Assistance of the support teacher, avoiding creating situations of privilege towards the student.		

Technical Resources and materials I		
Provide the student with specific material if the activity requires it		
	Yes	**No**
Digital documents instead of photocopies or scans		
Webs or adapted links, which have the necessary zoom		
Sound readings in daysy or mp3 to work comprehension, attention and memorization.		
Use of digital notebooks (app Good Notes)		
Materials and photos contrasted		
Visual rehabilitation programs		
Use of cane		
Lectern/ folding table		

Technical Resources and materials II		
Installation in the classroom of specific instruments and didactic materials:		
	Yes	**No**
Magnifying glasses		
Tablet/computer		
Magnifiers		
Web cam		
Digital whiteboard		
Monitor connected to the blackboard		
Telescope		
PDFs		
Extensions		
Apps		
Voice over		
Seek multisensory education, as a complementary source or, where appropriate, alternative information.		
Reading plan books in sound format. Daysy…		

ORGANIZATIONAL I		
School Center		
	Yes	**No**
Thorough knowledge of the different areas through which the student has to develop.		
Previous knowledge by the student of the spaces of the center: o Fixed elements: location of columns, windows, holes.		
o Mobile elements: Classes, location of tables, bins, furniture.		
Elimination of obstacles and architectural barriers that prevent accessibility.		
Provision of spaces where the student will receive some support.		

ORGANIZATIONAL II		
Classroom		
	Yes	**No**
Lighting control: avoid backlighting and glare.		
Location in an area close to the teacher and close to colleagues who support him/her and favor their integration in the classroom.		
Fixed organization of the different elements and express warning in case of their modification.		
Blackboard sufficiently visible or accessible with access devices such as: cameras, monitors connected to them...		
Need for flexible groupings.		
Spacious work table to organize his/her material (keep in mind that the volume of their equipment and materials is very large).		
Folding table so as not to damage the back and avoid inappropriate postures.		
Classroom equipped with digital whiteboard and enough plugs to connect monitors, webcam...		

CURRICULUM

Organization of contents

MATHEMATICS

	Yes	No
Once acquired the mental calculation, favor the use of the calculator.		
For the distinction of geometric bodies, to work the internalization through manipulation.		
Use of contrasted graphs, asking for an approximation not accuracy.		
Access to representation of plans, models, maps through relief models.		
Measure angles with approximations.		
Use colors for learning basic and combined operations.		
Use of tables of mass measurements, length, and capacity to internalize the concepts.		

CURRICULUM		
Organization of contents		
FOREIGN LANGUAGE		
	Yes	**No**
Adapt learning by gestures, non-verbal techniques, drawings.		
Prioritize the dialogue or conversation in front of other more visual resources.		
Complement parallel explanations in the mother tongue in activities that involve recognition of scenes, gestures...		
Starting from understanding to reach the expression.		
Use of digital dictionary.		
Use the same instructions as in the Spanish language.		

CURRICULUM		
Organization of contents		
MUSIC		
	Yes	**No**
Learn the position of the notes in a pentagram adapted and contrasted.		
Memorize the songs to perform (look for songs that are not too long or ask them to play a part).		
Difficulty learning the flute, replace it with a keyboard.		
Adapt the activities that require movements through space.		
Use the student as a model to show the body expression exercises and internalize them.		
Use keywords, whistles ... as directional strategies.		

CURRICULUM

Organization of contents

ART CLASS

	Yes	No
In cutting activities, contrast the lines well and avoid the complicated lines of cutting.		
Avoid origami activities.		
The modeling activities will not be demanding with the details.		
Value the production process versus the final result		

GYMNASTICS

	Yes	No
Use contrast material in ball activities.		
Adapt the objects reception exercises.		
Use the student as a model to show the exercises to be done and internalize them.		
Repeat and reiterate the orders orally and verify that he/she has understood them		
Promote integration in gaming equipment.		
Adapt the activities that require movements through space.		

CURRICULUM		
Methodology		
	Yes	**No**
Before starting to produce a new learning, explain briefly what they are going to do.		
Structure and order the acquisitions that are necessary so that this concrete learning can be produced. No actions are taken to avoid repeated errors.		
Propose activities with different degrees of difficulty so that the student assumes challenges.		
Adaptation of long sentences by shorter ones that facilitate reading.		
The explanations should be descriptive and whenever possible the students will manipulate the different objects and materials.		
When the class participates in activities where the information arrives mainly through visual means, the student will previously receive supplementary information.		
Perform the activities directly in the pdf to speed up the pace of work.		
Some words (there, here, etc.) make sense if they are completed with gestures. In these cases it is better to use verbal references like: to your right, to your left, etc.		
The explanations that require the use of the blackboard must be described orally and, whenever possible, it will be given in Braille beforehand to the student.		

	Yes	No
Design activities that enable interaction and joint work among students as cooperative learning experiences.		
Help only when he/she needs it to promote their personal autonomy.		
Include content and design activities that bring students to the world without vision.		
Make them see their needs and how to approach them.		
Motivate the student to participate and interact with their classmates and vice versa.		
Carry out explanations individually if necessary.		
Introduce early study techniques to strengthen the selection of content.		
Provide schemes to the student before giving the subject.		
Record the subjects to study with a tape recorder.		
Facilitate them the audiovisual materials seen in class.		
Check frequently that they have understood all the indications, orders or concepts.		
Use matte paper to avoid reflections.		
To provide these students with adapted materials by increasing the size of the letter (macro) or contrast and the use of sources and highlighting forms clear and easily identifiable.		

CURRICULUM

Evaluation

	Yes	No
Conducting oral tests.		
In addition to oral tests, written tests with an appropriate letter size will be used.		
Additional time when doing written or reading activities.		
Conducting exams with additional materials.		
Assess the content of the answers and not the spelling or composition of the text.		
Check the questions well to know if he/she has made a mistake because they do not understand the question.		
Reading the exam questions to the group helps him/her individually.		
Access the extra time marked by the law whenever necessary.		
Adapt exams with exercises that are visually accessible.		
Reduction of the number of questions in exams that we know in advance that they will involve more execution time.		
Give less specific weight to those components of visual content (graphic representations ...).		

CURRICULUM		
Timing		
	Yes	**No**
Extra time in some activities that sometimes occur in the processes of acquisition of learning as well as in the action.		
Extra time in the realization of the exams, by law they have 50 min more.		
Adaptation of exams to avoid excessively long times.		
Modify the timing of the schedule if there are contents in which you have to invest more time.		
To foresee the necessary extra time at the time of performing manual precision or precision activities, modifying the timing if necessary.		

11. RESOURCES.

Below we show a series of images made in various schools in which different ways of adaptation for people with albinism and visual disability are shown.
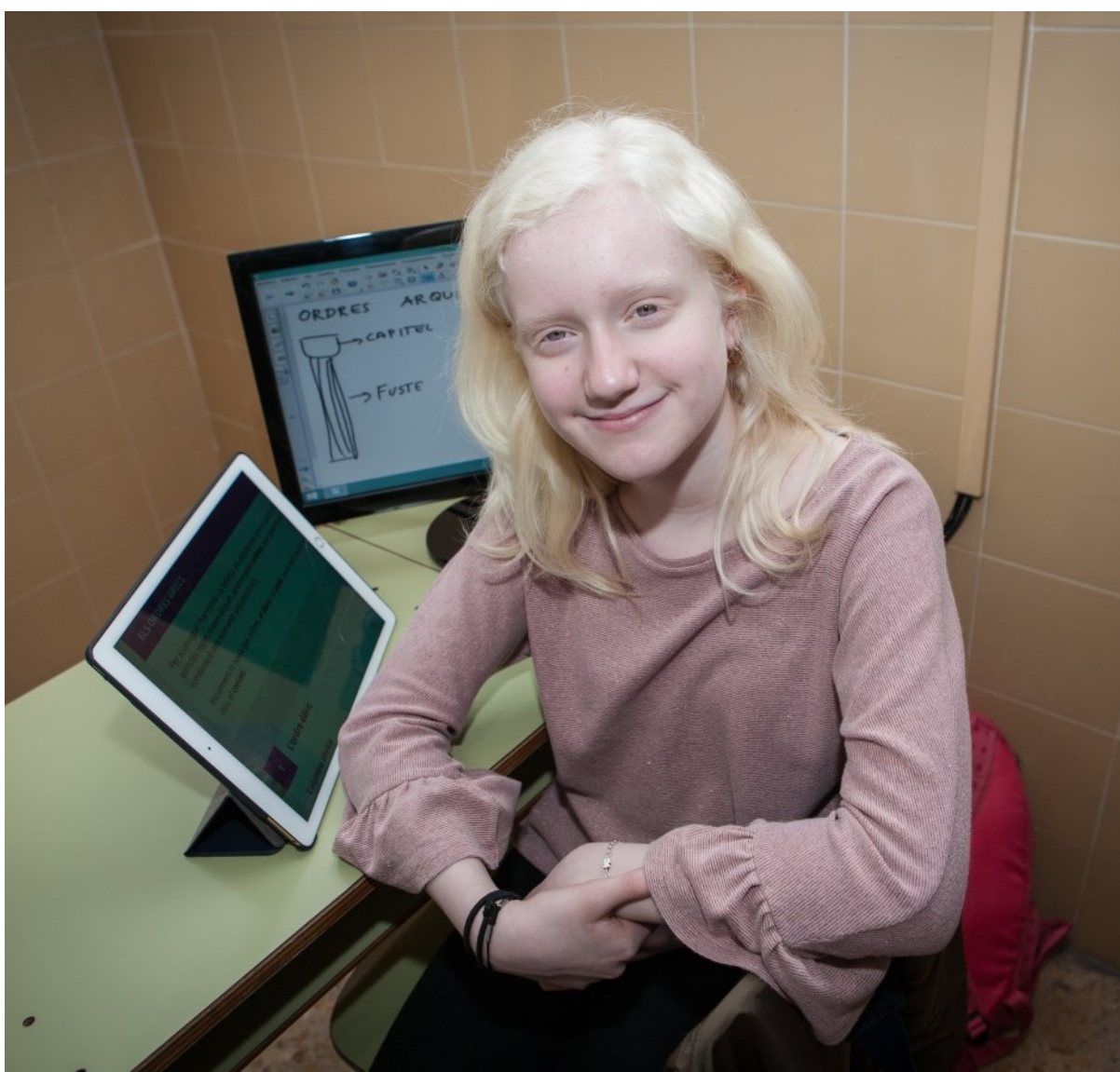
Valencia: Ipad 12' and screen conected to digital board.

Denmark: Ipad as tool for working and studying.

Italy: Backlit blackboard and adapted materials

Italy: Macrotypes

Italy: Embossed maps
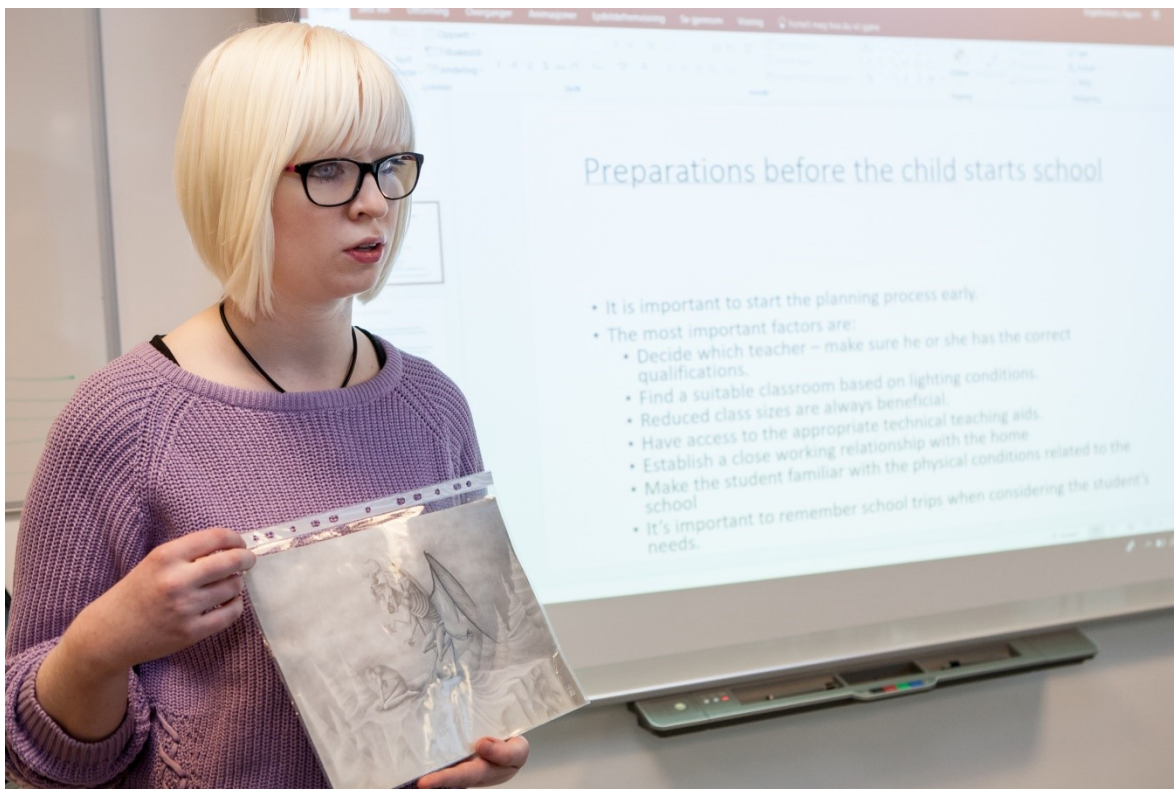
Norway: Digital board connected to the Ipad

Children with albinism in school activities

Spain: computer with magnifiers

Spain: Use of magnifiers

Spain: Adaptation to the study place

Spain: Adaptation to the study place

Spain: Use of digitizing tablet

12. CONCLUSIONS

This guide aims to collect the most relevant and practical aspects of an adaptation for students with specific need for educational support in primary education (aged between 5 and 12 years), a situation in which people with albinism and/or visual impairment are included.

In Europe, the **equity inclusion** of students with specific needs in schools is one of the highest priorities in the educational field. These support measures for students with special needs aim to achieve an integration of the child in the classroom in order to achieve the specific educational objectives for each of the educational levels.

For this, the teachers, in collaboration with the support staff of the center, try to achieve an adapted response to students with albinism and/or visual impairment, and, as possible inclusive, always starting with the **early identification of their needs**; Identifying their needs as early as possible will help to give a better and individualized educational response.

The processes of integration of these students with special needs derived from their genetic condition and/or visual disability in the classrooms of primary education should lead to the **full inclusion of these in equity with the rest of their classmates**, through curricular adaptations and/or pedagogical methodologies that affect the whole class as a whole and not only the students with, in this case, severe visual impairment, promoted and shared by the whole of the educational community.

All collaborating countries, although with the specificity given to each one by their current legal system in education, defend the need to make adaptations and introduce specific supports that allow students with Albinism and/or visual impairment to access the study program on an equal basis opportunity than the rest of companions.

The introduction of adaptations in the methodology, in the timing, organization of spaces, specific activities, material and human resources should always be justified, designed, after an interdisciplinary evaluation, and collected in a document. This intervention plan may have different names, depending on the country, although in all cases the objective to which it intends to reach is the same.

In no case these adaptations will include modifications of general objectives of stage and/or area due to the fact of presenting visual deficiency and/or genetic condition of Albinism the students for whom it is designed; they would only be justified when they have some other type of added difficulty.

The elaboration of the Plan of individualized intervention, individualized curricular adaptation, etc. is the responsibility of the educational center where the student with Albinism and/or visual impairment is enrolled, having to do it with the commitment of guaranteeing its fulfillment and its continuous evaluation.

In Spain, the professional responsible for the development, implementation, monitoring, coordination and evaluation is the classroom tutor of each level of primary education that the student with Albinism and/or visual impairment is attending.

It is essential the interdisciplinary and coordinated intervention among all those involved in the plan of individualized intervention for students with Albinism and/or visual impairment.

This guide can be useful for the educational community, and specifically the for the tutor of the primary classroom, in the elaboration of the specific Intervention Plan, individualized curricular adaptation, etc. when there is a student with Albinism and/or visual impairment, and essential to respond to their specific educational needs.

This guide can also be useful to guide in the elaboration of the Plan of Attention to the Diversity from each educational center in which it is schooled students with Albinism and/or with visual deficiency.

This guide is the **result of personal experience**: it is a compilation of information, theoretical and practical, accumulated under the experience lived directly, both at the family level and at the educational level, collecting and transmitting, sharing and debating with other parents, mothers and education professionals.

We have tried to develop an accessible guide, in which both family members and educational professionals **can consult** when they assume the responsibility in **primary education** of a student with the genetic condition of Albinism and/or visual disability.

For writing the guide we have used the term **disability** since the great visual deficiency present to all people with the condition of Albinism always entails a functional limitation, in different degrees, ie disability.

We have focused on the consequences of **visual impairment** related to Albinism and possible measures to alleviate the related functional limitation and we have not entered into the problems related to the lack of skin pigmentation or derivatives at the social level for their physical appearance; This has been the case because visual deficiency is the characteristic that more can difficult the access to basic education in students with albinism. We do not want this to lead to the erroneous belief that skin protection is not important - Neither do we think that the inclusive tutorial action plan in which the tutors will facilitate the integration of these students should be neglected.

In compliance with our commitment to the principles of equality we have tried to write this guide **avoiding the use of sexist language**, following some of the recommendations for the use of a non-sexist language (for the Spanish language) proposed by UNESCO in 1991.

Although most of the graphic material has been created by Ana Yturralde Arquiola (Ana Yturralde

photographer) under Royal Decree law 2/2018 of April 13, which modifies the revised text of the Intellectual Property Law and by which Spanish Directive 2014/26 / EU of the European Parliament and of the Council of February 26, 2014, and Directive (EU) 2017/1564 of the European Parliament and of the Council, of September 13, 2017, are incorporated into Spanish law. its Article 31 ter. "Accessibility for people with disabilities" we have not requested authorization from all holders of **intellectual property** rights, although we refer them, as they are of use for a non-profit-making product that is directly related to the disability, in our case visual.

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  www.escolapiasvalencia.org
- Hokksund ungdomsskole (Norway)
  https://ovre-eiker.kommune.no/skole-barnehage/grunnskole/hokksund-ungdomsskole/Sider/side.aspx

- Sølvgades skole(Denmark)
  http://soel.skoleporten.dk/sp
- Scuola Media Statale Vivaio (Italy)
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- "Conoscenze e tecnologíe per una didattica inclusiva in Europa" Católogo delle buone prassi. Project number KA201-2015-012. Prepared by ANS: Associazione Nazionale Suvedenti Onlus.

- "Conoscenze e tecnologíe per una didattica inclusiva in Europa" Guida per línsegnante: La lingua Straniera per studenti ipovedenti. Project number KA201-2015-012. Prepared by ANS: Associazione Nazionale Suvedenti Onlus

- "Conoscenze e tecnologíe per una didattica inclusiva in Europa" Guida per línsegnante: La matematica per studenti ipovedenti. Project number KA201-2015-012. Prepared by ANS: Associazione Nazionale Suvedenti Onlus

These products have enriched this guide by validating points of view and intervention strategies with students with Albinism and/or visual impairment, highlighting good practices shared in this field.

EUROPEAN ALBINISM ASSOCIATIONS

- **Asociación Española: ALBA** www.albinismo.es

- **Asociacion Danesa: Dansk forening for Albinisme** http://www.albinisme.dk/

- **Asociacion Italiana: Albinit** http://albinit.org/

- **Asociacion Noruega: Norsk Forening For Albinisme** http://www.albinisme.no/

- **Asociación Alemana: Albinismus Selbsthilfegruppe e.V https://www.albinismus.de/**

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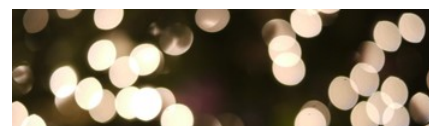
- **Asociacion Turca:**

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- **Asociacion Holandesa:Oogverniging** www.oogvereniging.nl/ledengroep/patientengroep-albinisme/

- **Grupo de asociaciones europeas:Albinism europe www.albinism.eu**