



**Mefacilyta**  
desktop



# MANUAL FOR A DIGITAL EDUCATIONAL PATHWAY

EUROPEAN PROJECT **ERASMUS +**

Fundación  
Vodafone  
España



Erasmus+



ORDEN HOSPITALARIA de  
SAN JUAN DE DIOS

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# 1. Introduction.

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This document pretends in the first place to offer a brief analysis about the role played by assisted technologies regarding Functional Diversity, its technical possibilities and the way these technologies, inserted within the educational and accompanying processes, could contribute to developing apprenticeships and the autonomy of people with cognitive support necessities and other alterations of neurodevelopment

This text has been structured in two big blocks; the first one, destined for professionals, tries to act as a educational manual or dossier, where we capture the objectives, contents, methodological principles and educational techniques, employed in training professionals in the use and implementation of the Mefacilyta tool. Within this block, and acting as quick use manual, you can see screens of this application, which will facilitate the learning process for new professionals trying to go in more depth by themselves in the use of this web platform.

Since this is a learning precursor tool, if we want to get from it its maximum potential, we will have to design an educational learning process where the end user should know the different possibilities offered by Mefacilyta. That's why we also present within this block, a number of methodological considerations, based upon special educational needs that stems from the intellectual disability, that professionals will have to consider within the training processes of their users.

In the same way, in order to bring more information about the tool closer to professionals, we outline as an example, activity proposals and/or supports designed to contribute in the strengthening, training and developing of cognitive functions affected by intellectual disability.

The second block is oriented to the end user, in other words, the person who will use Mefacilyta in his/her training or different moments of their daily life. The section has been redacted based upon the principles of cognitive accessibility and easy reading, and tries to offer useful and significant information about how to use the tool, presenting a brief user's manual and recommendations for the first steps.

Finally, the following document is the end result of a collective learning process in which had participated professionals in the area of disability in 8 different countries from the European Union, led by Juan Ciudad, under the framework of a project financed with European funds from Erasmus +.

This way, during a period of 1 year and 8 months, different professionals have tried in their own centers the tool Mefacilyta, collaborating in its design with Fundación Vodafone España, a company that has led in developing this technological solution and others that serve as a complement, giving shape to a network of apps destined to improve learning and communications processes.

## 2. Technology and functional diversity, analysis and justification.

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The collective group of people with intellectual disabilities, in spite of the advances in educational, social and labor matters, still presents today a high degree of social exclusion. This case is reflected in the limited participation level of people with functional diversity in the regular services offered in their communities (schools, sport centers, libraries, museums). Those services, do normally lack the material/personal resources or the access conditions in order for the people that are part of this collective group could benefit from it. They have been designed based on a set of rules that leaves out a diversity of functioning levels.

Same thing happens within the labor world (from the total of people with disabilities who are in labor age (1.335.100), there's only one out of four working (25,7%), as opposed to 58,2% in the general population.) This takes places due to a collective imaging that consider as no productive a diversity of people, including their training level, clearly conditioned by educational programs, that are sometimes impoverished and barely efficient.

On this global and interconnected world we are today, we can say that TIC's (Tecnologías de la Información y Comunicación) act or could act as inclusive factors, promoting innovative educational programs, functioning as support for cognitive processes and tasks; as a consequence improving functioning levels, and therefore the quality of life of people with some type of disability. These aids, even though they can't overcome many of the barriers, at least they mitigate certain difficulties, and this way we could affirm that they increase the capacities of individuals and have an important impact in their self-concept as well as in the collective imaging, which begins to understand that with the due support a diversity of people could reach important levels of autonomy and functioning. However, as M<sup>a</sup> Pilar Núñez and José Antonio Liébana have indicated recently, "this globalized and communicated world still reflects inequality, as it demonstrates the fact that the TIC's are not accessible equally for all" (2004:40). For this reason, it's necessary to take steps in order to avoid that the digital gap could be another factor increasing levels of social exclusion.

From the arrival of the information and communication technologies, especially with the internet, society has experienced an important change, configuring a structure that works in a network mode where we interchange constantly with different agents. This has generated a big impact in the way we relate to each other, and how we learn, work and consume.

The technological revolution has also reached the scope of disability. Firstly, the developers of support technologies focused their efforts in acting over the necessities derived from sensorial and physical disabilities. Mainly, they have designed access technical aids, which would favor labor insertion, without any doubt one of the biggest challenges that the collective of people with functional diversity is facing. However, if we focus on the collective of people with necessities of cognitive support, that although today, we're beginning to have some solutions in the form of mobile applications, there is a repertoire still scarce of technological solutions that could contrite to offer support for overcoming difficulties that appear as a result of the interaction between the individual and society, either at the labor, social, emotional or information access level.

This type of initiatives constitute an important concept change in relation with intellectual disability, and are committed on breaking the logic that traditionally has maintained this collective besides the development I+D+I. One of the objectives that vertebrate this project is to minimize the digital gap that has left unexploited the possibilities offered by technology in terms of learning and labor insertion, therefore the inclusion and active participation within society.

It's undeniable that the TIC,s are a part of our daily life and they can help to mitigate certain difficulties coming from the D.I, contributing to eliminate cognitive barriers and they favor the real equality of opportunities. This allow us to explore new ways that could facilitate the development of skills that are necessary for our daily life, increasing this way peoples autonomy, and therefore contributing to the creation of an autonomous and independent life model.



### 3. Initial considerations about the tool.

Mefacilyta Desktop is a tool that allows to obtain support highly individualized, developed by professionals dedicated to direct treatment of people with disability and another alteration of the neurodevelopment. This technological solution tries, using different materials suitable for the augmentative systems of communication, to support cognitive processes affected by intellectual disability, such as treatment, sequencing or generalization of learning. Thanks to the applications network that will interact with Mefacilyta, we contribute to also improving communicative capacities using the maximum number of channels in this sense, favoring the processes of expressions and comprehension as well of messages/slogans.

The design of these supports doesn't demand a high computing qualification, and neither any knowledge of software programming. The support personnel, from now on P.A, has a web platform designed in order to be able to use it without this kind of requirements. However, the large number of possibilities offered by this tool, makes it necessary to have a previous training, or at least a route or manual detailing the different actions to be taken to obtain the maximum performance out of this framework. The object of this document is to bring closer to any interested professional all those user guidelines and recommendations in order to facilitate the first steps, eliminating difficulties that could delay the implementation and derive of the mentioned tool in the life of any center and/or in which could be applied.

The technical characteristics of the web platform allow us to use all types of multimedia elements, and we can select those that are better suit for the communicative and cognitive of each individual (pictograms, icons, pictures, videos, texts, audios). The support design from the P.A, is a process that needs the user participation, which will influence in a positive way the degree of individualization and significance of all aids, that will always favor the maximum level of autonomy and the starting point will be the previous knowledge and experiences of people with functional diversity, using augmentative materials of communication employed up to that moment in a analogical way and now are available on a digital version in their mobiles and tablets.

The standardized character of this tool (to this day, all of us use mobile telephones to develop different tasks), is considered an important aspect in terms of inclusion, use of resources that form part of the usual social functioning, favors the its implementation in more scenarios, the no discrimination and the real equal opportunities.

## 4. Organizational steps and materials package for project development.

As in all change processes, in this case the use of technologies in the attention of the collective of people with disabilities, there's a series of keys that will favor the consolidation of these tools, one being the resources allocation, personal as well as material, needed to manage the change, as well as establishing organizational measures necessary for its development.

### → 4.1 Human resources in the center:

To create the profile of 1 project responsible /coordinator in the center, who will give support to the remaining P.A and will act as motivator of the learning process establishing the educational route, that is, the different steps to give on order to get the maximum performance from the tool.

Sometimes, the professionals direct attention won't leave time enough to prepare the material; working with new tools requires the necessary time to know it well and get the needed skills to exploit the possibilities that offers the application. The coordinator could act as facilitator:

#### **TareCoordinator tasks:**

- Start an educational route through practical training sessions.
- Listen to the P.A questions in relation with the tasks established in the educational route.
- Evaluate the elaborated supports.
- Validate/evaluate with the P.A the elaborated supports
- Notify errors on the tool.
- Create professional profiles for the remaining P.A's.
- Dynamize the project's m-capacita in the center.
- Cooperate with the rest of professionals in the identification of users or the department where they're going to implement the tool.



- Collaborate with the rest of professionals to detect necessities that could be covered by the tool.
- Develop supports when asked by other professionals.
- Evaluate supports.
- Training the trainers.

## → 4.2 Material resources:

1 computer for each professional, with Internet connection.

Smartphone and/or tablet with Internet connection, although you can activate an offline version; if you wish to access all the functionalities, the mobile/tablets devices must have Internet connection, via WIFI or through data itinerancy.

**(RECOMMENDATION: see attached document. Device's technical characteristics to use mefacilyta,). N°1**

## → 4.3 Structural resources:

To have a Wifi network in the centers.

To plan times of design/ developing /evaluation of supports to answer the user necessities.

## 5. Objectives:

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### → 5.1 General objectives

To use the tool M-facilyta to increase the ability of people with functional diversity favoring the increase of their autonomy, Independence and participation in society in an inclusive way mitigating their shortages and increasing their Life Quality.

### → 5.2 Professional objectives

- Understand the tool 's possibilities as a resource to support different type processes: communication, daily life activities, environment structuration, learning basic skills.
- Training professionals in the use of the tool M-capacit@d through in presence training actions and on-line with specific materials.
- Validate the quality and effectiveness of new methodology using confirmation processes.
- Spread the experience throughout other centers and institutions treating people with disabilities, inside and outside the country.
- Have a direct influence on the quality of the insertions on people with intellectual disability in the workplace, which is going to directly affect the image given by the company, both internally and externally.
- Increase the professional 's capacity (labor trainer or similar) to accompany and give advice, whenever necessary, keeping always in mind the privacy and intimacy of the person when managing sensible data (previous authorization of the person and/or his or hers legal representatives, according to the L.O.P.D.)

## → 5.3 End users objectives:

- To develop the skills and requirements necessary to make a better use of the tool.
- To increase self-esteem levels, generating a self-concept suited for their possibilities within the scope of technology.
- To reach higher levels of autonomy of daily life activities using the TIC.
- To use technology to the rest of the support resources employed by the person.
- To improve the communicative competences using digital communicators.
- To develop digital competences favoring its inclusion at social level, pre-labor and/or labor.
- To increase the environment comprehension skills, improving the anticipation capacity
- To reinforce basic cognitive functions, like attention, perception and memory, affected by a disability situation.
- To reinforce superior cognitive functions, like sequencing, abstraction and anticipation.
- To develop team work skills using technology.
- To acquire skills related to the competences of learning to learn.

## 6. Secuenciación de bloques de contenidos.

### → 6.1 Bloques de contenido interfaz del profesional

En este apartado se establecen los distintos contenidos de forma estructurada que han de abordarse para el completo manejo de la herramienta. La mayor parte de estos contenidos se desarrollarán desde el interfaz profesional, aunque existen otros que han de trabajarse empleando el dispositivo que va a usar la persona con D.I.

#### FIRST STEPS

##### B.1: Management tasks of the professional environment

- Act.1 Add a new coach
- Act.2 Complete information with e-mail coach
- Act.2 Add a new end user/end user test
- Act.3 Add user of another professional.
- Act.5 Create a user's group
- Act.4 Understand the difference between public and private categories.

##### B.2: Upload, save and place multimedia elements

- Act.1 Create own categories
- Act.2: Upload private contents from a PC(images, audios, texts, videos)
- Act.3: Place personal multimedia in own categories /not shared
- Act.4 :. Upload multimedia considered public and place it in own categories /shared
- Act.5: Look for public multimedia in the cloud and assign public multimedia in own categories
- Act.6 Upload contents from multiple uploads of files

##### B.3: Categories management

- Act.1 Upload multimedia from devices (TABLETS/MOBILES).
- Act.2 Place multimedia uploaded from a tablet in not shared own categories
- Act.3: Edit multimedia and categories
- Act.4 Share categories with another professionals from the same organization

##### B.4: Design and elaboration of supports /activities

- Act.1 Understand the meaning and components of headings
- Act.2 Understand the classifying system of activities in scopes/scenarios
- Act.3 Build the activity with different types of multimedia (pictures, video, text and audio)
- Act.4 Using different structural options of activity (jump and conditional)
- Act.5 Save the activity

## B.5: Managing activities /supports.

- Act.1 Using the options of managing activities. (edit, duplicate, delete, QR)
- Act.2 Duplicate activities to adapt it to the specific necessities of each person
- Act.3 Assign activities to users through favorites
- Act.4 Execute supports through a QR code
- Act.5 Assign activities through the calendar.
- Act. 6 Use notifications (Instantáneas y recordatorios)
- Act. 7 Configure activities as templates (supports published in the cloud)
- Act.8 Assign activities/supports from the cloud to my activities cartera

## NEW FUNCIOALITIES.

### B.6: M-Etiqueta, NFC

- Act.1 Understand the interrelation between mefacilyta and metiqueta
- Act. 2 Download metiqueta in devices.
- Act. 3 Acquire NFC etiquetas
- Act.4 Add new etiquetas, associating text, resource and event
- Act.5 Assign etiquetas
- Act.6 Record etiqueta
- Act.7 Trigger resource using metiqueta

### B.7: GAMES

- Act1 Load resources from the PC or from the own categories of multimedia.
- Act2 Understand the blocks that comprise the games. Its differences and its possibilities
- Act3 Design games of look for the correct image.
- Act.4 Design games of the sequence.
- Act.5 Design games of guess the time.
- Act.6 Assign games to a user.
- Act.7 Include games through the conditional or the jump.

### B.8: LISTS

- Act1. Elaborate the list 's header, understand concept of periodicity
- Act2.Assign activities to the list
- Act3. Save lists
- Act4. Assign list

## B.9: HERMES

Act.1 Download Hermes the play store.

Act1. Understand interrelation between Hermes and Mefacilyta

Act3. Sincronize Hermes with mefacilyta from adjustments

Act4. From the professional environment create new categories

Act.5 Importar vocabularios desde mefacilyta a Hermes

Act.6 Exportar vocabularios desde Hermes a Mefacilyta

## B.10 PLAFONES

Act.1 Download Plafones from Play Store

Act.2 Understand the possibilities of the personalization of these tools

Act.3 Personalize the user's plafon from the options for the tool's adjustments

Act.4 Understand the difference between Hermes and the Plafones communicator.

Act.5 Personalize the configuration of the plafones communicator.

Act6. Link mefacilyta with Plafones (to the communicator's level)

Act.7 From the mefacilyta environment web, create new plafon (personalize the plafones)

Act.8 Define functionalities /tools though the plafon.

Act.9 Create categories to elaborate the communication's plafon

Act.10 Nest the communication's plafones to a plafón in order to open plafón com.

## → 6.2 Contents sequencing for learning user's interface:

Apart from the strategies and methodological techniques employed in teaching how to use the tool, we present the sequencing of the contents to deal with the person with D.I. These contents related to the user's interface, are set out in a general way and the support professional should assess which ones must be worked on or not, depending the user's level, his/her previous characteristics and skills using mobile and tablets devices.

## FIRST STEPS

- Identification of the mefacilyta logo between the rest of elements from the device.
- Tactile interaction with the screen, adjust the pressure exercised by the user on the screen and the time of pressure.
- Screen sliding up/down, right/left
- Using methods, like push buttons, ocular mouse, wiping system ... (when necessary)
- Display the options menu
- Access a favorite
- Reconocimiento de imágenes asociadas a los apoyos.
- Capture QR code
- User 's identification in the tool through the QR.
- Access to supports through the QR code
- Access to the camera recognizing the logo
- Elementos disponibles en la función de cámara: foto, video, audio, activar cámara frontal.
- Send the multimedia contents to the reference professional.
- Access to the planning supports /activities for the current day
- Access to the planning supports /activities for the current week
- Access to the supports appearing on the lists
- Access to the support list.
- Games
- Access to supports using a NFC card



## 7. Educational methodology and strategies.

### → 7.1 Methodology for learning to use the tool by professionals.

- The learning process for using the tool has to be **essentially practical**. That's why the training sessions should be **similar to a workshop**. Only performing the tasks requiring the use of a platform the apprentices will be able to use in an autonomous and efficient way.
- In the same way, it is considered effective working one on one, although in terms of time it's a more expensive structure, and the trainer can guarantee an individualized attention, especially in those cases in which there are more difficulties, less experience in the use of the TIC...
- Although it is not necessary to have a high level of computing knowledge, you need in fact to know how the professional environment works and requires a basic level of use in terms of Windows (paint, file management) and Internet (using search engine, access through url). **Checking previous knowledge**. In this sense, it will be necessary parting from it to establish new specific learning using m-facilityta. This way, another adopted methodological principle will be **part from previous knowledge and experiences**.
- To make the most from the tool it will be necessary to establish a **correct and organize sequencing of contents** (see the contents section, pedagogical route). Every professional should know what steps to take knowing where his learning is going, gradually the different parts conforming the application. This makes easier the trainer's task, and he can place each apprentice on a specific block of contents, knowing what they know about the application and what they have to learn.
- Although many tasks can be developed as an example, we will always try to provide it with the highest level of **significance**. (For example if we are working on uploading files as pictures, we will use pictures that the professional would like to incorporate in the tool and then build supports). This way, it could be motivator and profitable due to the sessions of practical work that must be developed by the professionals.

- The development of workshops or on-site practical sessions could have the following structure:

A short period of time is allowed to freely explore the interface for the professional, which activates the interest and favors mayor strength of the training and bigger degree of familiarity with the options menu. If any member finds the route to complete the task, he will be the one explaining to the rest of participants how to execute it, the “expert” will be the one completing the task, always verbalizing in a calmed way so after they see it, the rest of participants could carry out the route. If the task to work on is more complex, it is good to structure it in small tasks where we will apply the same methodology that the one explained in the case of simple tasks.

- The participant will carry out that task after the have seen its development by the expert. The training process will be marked by the verbal molding or by imitation, although in on-site sessions with enough time, the learning process can be facilitated by exploration.
- Lastly, we will see the end result of the developed tasks. In other words, the product derivative from this work, where it has been placed the computer as well as the mobile version of the tool.

## → 7.2 Methodologies for training in the use of the tool by a user with functional diversity or by the end user.

The methodologies employed in the training process of users with functional diversity will be determined by the characteristics of this people and the special educational necessities derivative from it. This way, the things reflected on this section are series of methodological principles and general didactic strategies that have to be adapted for the P.A. at each person who is going to use this tool.

- **Start from the user interests and necessities.** During the period of time that the project has lasted we have seen that the commitment degree on the user’s part is going to depend on the type of support he’s going to get from the tool. In this sense, it’s positive to ask the user or the group what kind of support they wish. Although later the professional could detect more areas or scenarios where the application could be useful for a person with disability, at the beginning is important that users see that certain things they like/are interested on, that before they couldn’t do by themselves, now they can, getting help from his/her mobile device.

- **Select what communicative channels** should be employed to obtain a higher level of information **and what elements are more used /known by the end users.** (Pictograms, icons, real images real, video, image with audio, etc). In this sense, is important to reevaluate the effectiveness of communication support, pretending that always could favor the increment of the autonomy and the normalization, in short, the professional, with time he could contemplate the possibility of changing pictograms for icons, that pretend to get the user closer to resources in the more normalized way possible.
- **The designed supports need to pay attention to the principle of inclusion** and have to procure the increment of the autonomy, giving information that the user needs, no more. In the same way that in the previous epigraph, the P.A, will evaluate the help with time, establishing the pertinent modifications, eliminating the necessary steps, always pretending that it favors the autonomy's development.
- **User's implication on the support's design and developing.** In the first paragraph, we talk about the necessity of starting from the user's interest as a methodology that favors motivation and significance of the process. In the way, it is good to imply him as much as possible in the design and elaboration of the supports, considering his possibilities. He can take pictures that will be employed in the elaboration of the supports, record audios, videos, in this sense we will be contributing to the development of digital competences and at the same time the competence of learning to learn. Pretend to increment the participation levels of the users, goes necessarily through generating participation spaces in each of the tasks having effect on him.
- As in every tool /resource, the user will need an accompaniment in the first moments. Depending on the previous use of this type of devices, it will be necessary or not to work on a series of requirements, as a tactile keyboard, slide your finger on the screen to change images, the waiting time considering the uploading processes of contents, etc, Again, **based on previous knowledge and experiences**, this will be fundamental if we want to secure it adherence to the too, avoid frustrations, etc. We will also employ the backwards chaining favoring the learning of processes that allow the user to take the most advantage of the tool.
- Regarding the groupings, it will be appropriate to establish different tipes, according the user's capacities and the contents to be tried, that the professional evaluating the users learning style will have to establish structures that favor at every moment the acquisition and development of these competences. In short, the tool's training-learning process could be aborded fro, the **learning between equals, cuples, experts groups or from individual sessions.**

## → 7.3 Methodological techniques for tool's training adapted to the difficulties in the execution of cognitive processes and other alterations based on disability:

In spite of the fact that the design of the user's interface is based on the cognitive accessibility criteria, in order to plan and carry on the learning-training processes in the tool's use we'll show now a number of methodological recommendations that soften the cognitive difficulties derived from intellectual disability.

### ■ Perception problems:



Take care of the amount of stimulus presented to you.  
We can use the same tool to design supports that help us to use the user's interface. This will allow us to face each part of the user's menu highlighting the relevant icons for the development of a specific task.

### ■ Attention problems:



The information will be presented in different channels and formats, always in a clear form.

(we can design a support with mefacylta that will explain the tool conjugating images with audio notes that could complement each other)

Eliminate from the main screen other applications that could generate distractions

### ■ Memory problems:



The training process referred at how to use the application, has to try to generate automatisms, this means employing similar processes easily memorized. The tool offers different routes to trigger the supports, is important, in the learning phase, to select which one is the appropriate route for the end user and try to use it for different actions. For instance, to use the QR code, for identification and for obtaining supports.

In the same manner that in previous cases, we could create specific supports from the tool that would help to remember key elements of the user's interface. For instance, a support to strengthen the association between the pictograms appearing in the executable options from it.

## ■ Abstraction problems:



The superior cognitive processes, like abstraction and generalization could be affected by the disability situation, and could interfere in the tool's training process. To carry out activities or training sessions in different spaces and with different ends, will help the user to understand whatever can be offered through the different functionalities. This makes it easier the implication of the person with D. I in the process of request, design and creation of help.

## ■ Learning difficulties derived from difficulties in communication.



The information we offer to the users during the training in the tool's use is important that it be adapted both at his/her comprehension and his communicative style. In this sense, it's important to analyze what resources are operated by the end user (pictures, videos, texts, audios, pictograms), and to employ these in the learning process.

## ■ Special educational necessities derived from behavior problems.



One of the concerns affecting the professionals working with people with special educational needs derived from behavior problems, is how this type of users are going relate with technology in general and with the mobile devices in concrete.

The learning of the tool, has to also contemplate social/emotional and psychological factors. In this sense, we have to highlight different techniques:

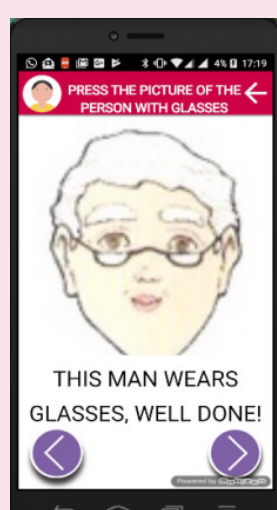
- Learning without any errors.
- Explaining the rules in a clear and concise way regarding the use of devices. (Not many rules, but you have to comply with the ones that exist.)
- Allow to attend the established rules, the use of functionalities that offer the mobile/tablets devices (listening to music, watch videos), if we offer them a mobile and tell them that they can't use the function they normally use, it's possible it will generate a negative feeling about the tool.
- Protect the mobile with a cover to minimize the risks in case it will fall.
- If several pupils share devices you have to establish turns that everybody understands.

## 8. How to use this tool to improve cognitive competences for people with functional diversity:

### → 8.1 Attention problems.

#### ■ Examples of activities for reinforcing this process.

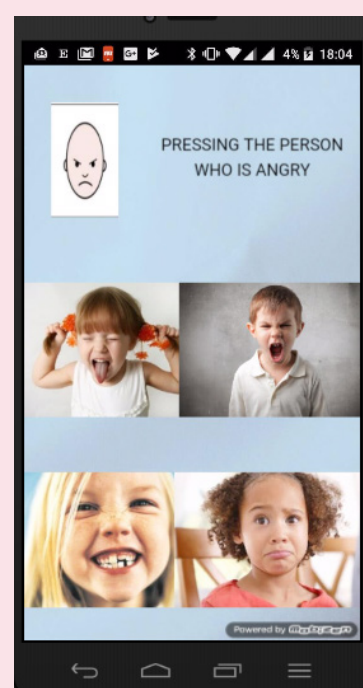
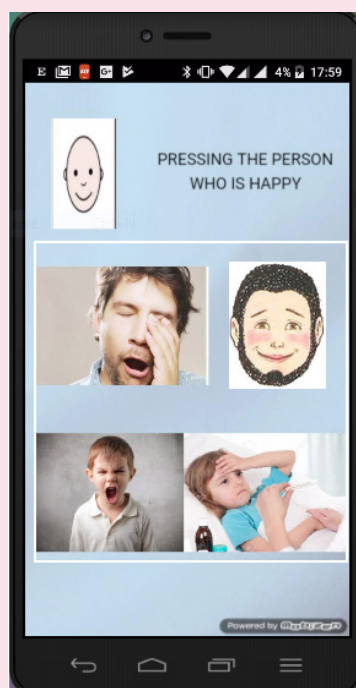
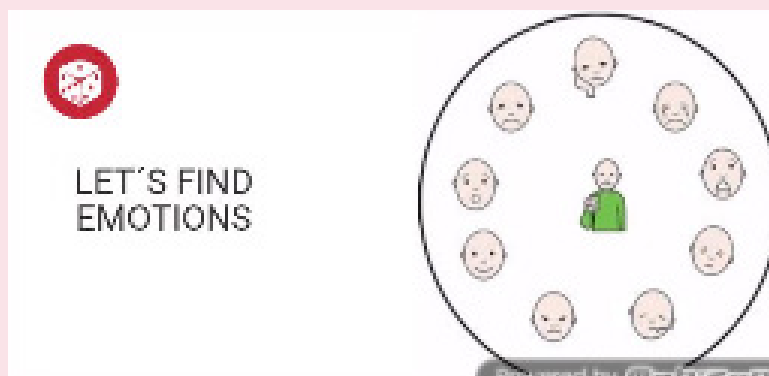
We will be able to configure activities where the user is asked to pressure a given object. It would be presented depending on the level more or less elements in the same computer screen. For that purpose, we'll use the activities function, where in the form of a sequence we can show a number of images asking you to pressure one in particular that will have an associated feedback telling him if it he was right or wrong. With this type of activity we contribute in the reinforcement of the attention processes, since the user has to look at each one of the elements filtrating the appropriate stimulus.



Also, using games functionality, in the section find the correct image, we'll activate this process asking you to select the same element presented in the activity instruction, from a group of elements appearing in the same screen.

In the sense that we shall employ more communicative channels in the activities we set out, image, text, audio, we will be contributing to improve the user's attention capacity, since the loss of information (auditory) could be complemented by the rest of elements (visual) or the opposite.

We'll have to adjust the duration of the activities to the student's attention periods to this question is perfectly personalized from the application since you can tell the number of steps that conform one activity.



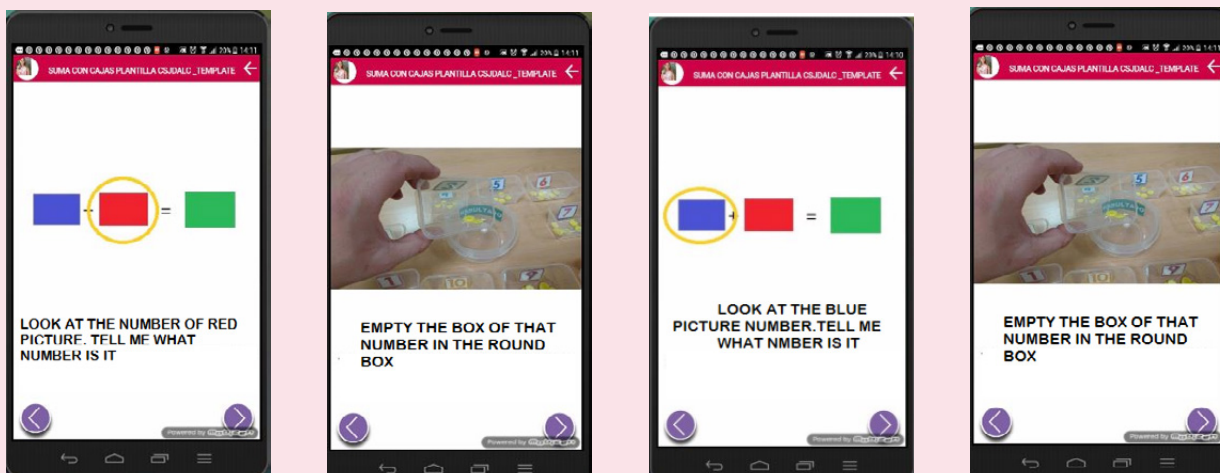
## → 8.2 Memory problems.

### ■ Activities to improve the working memory:

**The working memory** is the skill implicated in the information storage that we will have to operate when solving a problem. If we imagine a math problem, where the user reads the formulation, from the tool we could make more visible/recordable those elements that the user will have to remember. For example, we'll do this associating an audio to those elements so the information not only is stored at the visual level, but also is stored through the ecoica memory.

Depending on the level the user has, we could include the data in all the activity as a reminder. We offer information in a multichannel way.





**Prospective/intentional memory:** This skill implies to carry out a task that has been projected in the future. "Before I leave home I have to turn out the kitchen stove". This is one of the cognitive skills that are key for the development of an independent life and considering the users characteristics with intellectual disabilities is normally affected, making more difficult increasing his/her autonomy.

From the Mefacilyta tool, the professional could design series of reminders that could be programmed so the user can receive it in his mobile periodically, and also send it instantly. From the notification functionality the person with D.I. can see this difficulty mitigated.

Another activity that could be useful to reinforce the memory processes, is to show the user a number of images with the instruction that he should remember some details. For example, we'll show him pictures depicting the center professionals, or another partners, and we'll ask him to tell us after he has finished, what persons were wearing glasses.

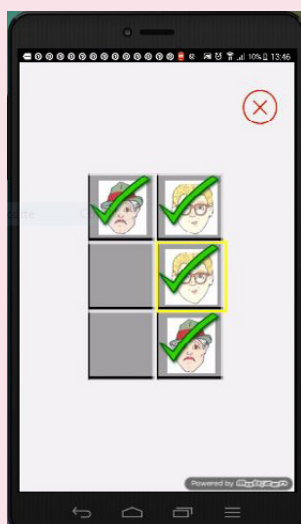
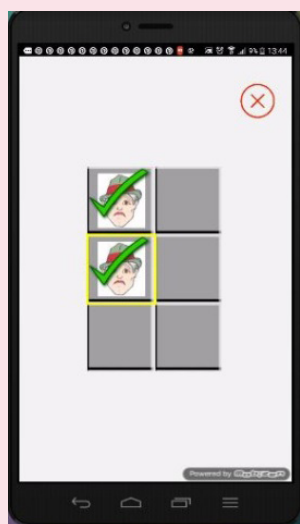
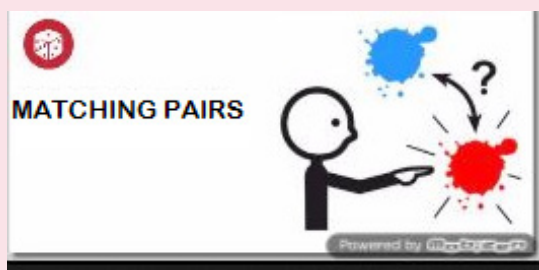


Another example of activity could be based on the contents in which you are working on. For example, if you are learning something about animals, we can show you a sequence and ask you at the end to tell us what birds, or what kind of land animals were there at the sequence. The number of elements we'll show in the sequence would depend on the cognitive level of the person.

Another functionality we could use to work on the memory is parejas iguales (equal couples). In the game section, the professional could design an activity where you offer the student a grill with a number of elements. Using his/her memory, has to discover these images, remembering where are the equal ones.

## → 8.3 Sequencing problems

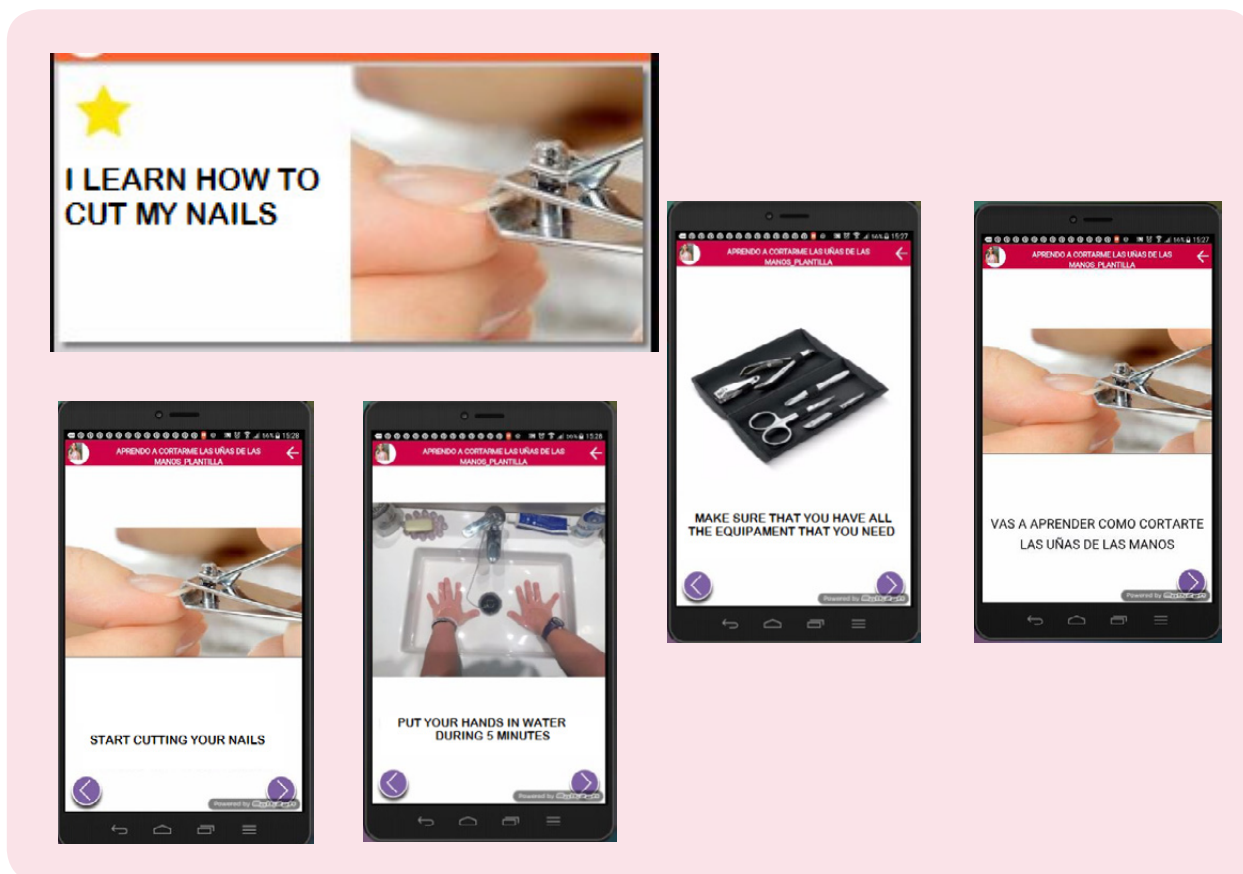
### ■ Example of activities for the development of these skills



Otro de los procesos afectados por la D.I, es la capacidad de secuenciación. En determinados Another process affected by the D.I, is the sequencing capacity. In some processes, you can see that the persons with D.I have difficulties remembering all the steps that form a given task. The tool offers different functionalities that will allow structuring the accessible information in a highly personalized way.

In a independent life context, we could design supports to structure activities related, for example with the kitchen (different steps to prepare a given dish), supports destined for reinforcing tasks of the daily life, for example to start a washing machine or watering the plants. This approach is also very effective in tasks within the working world, special employment centers, occupational workshops, where you develop tasks that normally imply a number of small tasks.

In this sense, in a cognitive training way, although it can also be employed by a professional to evaluate the acquired development, the tool will present to the user a game where the person with functional diversity could arrange images that conform a given process, arrange de sequence, this way after working on a given sequence we'll be able to evaluate if it has been interiorized.

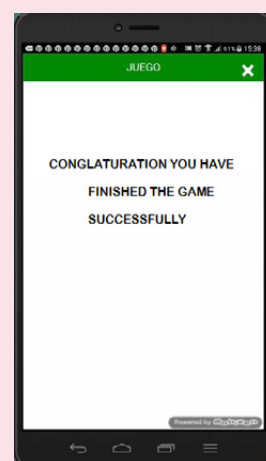
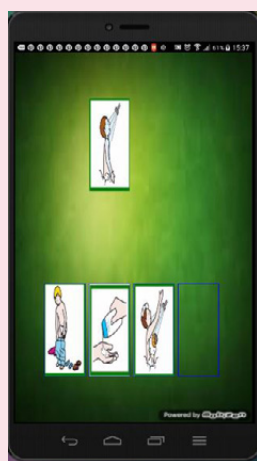
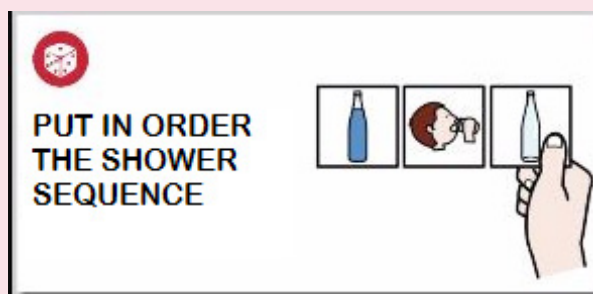


## → 8.4 Association problems.

### ■ Examples of activity to reinforce association

Establishing relationships between different elements, is again a skill being affected in some cases in people with D.I. Again, we could use mefacilita, specially the games offered by the tool to strengthen this cognitive process.

In this case we'll use again the game Find the correct image, where the user will have to relate images with the image that appears in the activity instruction. For example, we present an image of a kitchen and then we ask the student to find another one, between the offered images, related to this scenario. There's another developed game called selection, where parting from a grill with a given number of elements, the person with D.I, will have to press by pairs the ones that are equal.

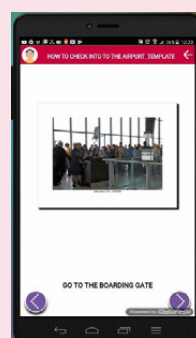
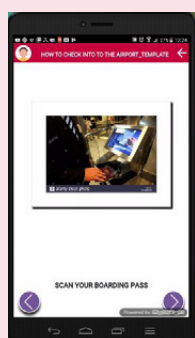
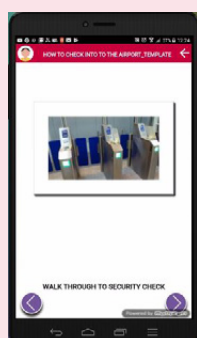
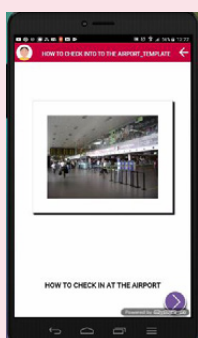
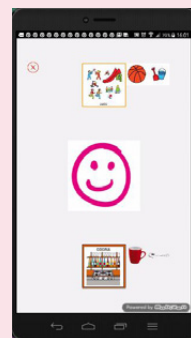
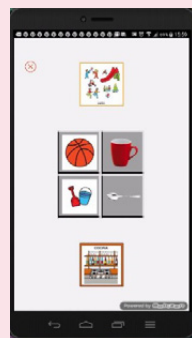
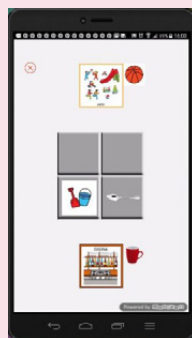
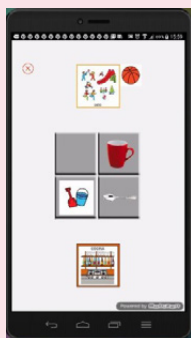


## → 8.5 Problems of abstraction/generalization.

### ■ Examples of activities to reinforce generalization problems.

One factor that is normally common in people with necessities of cognitive support is the difficulty to generalize learning, this means that certain skills developed in a specific scenario, are not present in others where the person is quite capable. For example, if one user with intellectual disability knows how to use the microwave oven of the center, he could have difficulties using the one at home. Using mefacilyta, the person can get support whenever he/she needs it, and the professional could design it in a very personalized way. The way in which the user is going to access this support will be different depending on his personal characteristics and skills. You can use the access through Favorites, codes QR, NFC...

Another of the tool's great advantage, considering it's a technology that we can transport wherever the user needs it, is the possibility of developing skills in a natural/real context. For example, we could work on skills related to the use of public transportation (train, bus, airplane, etc) in the specific place where these skills are needed. We could configure a support, for instance, how to check-in at the airport.

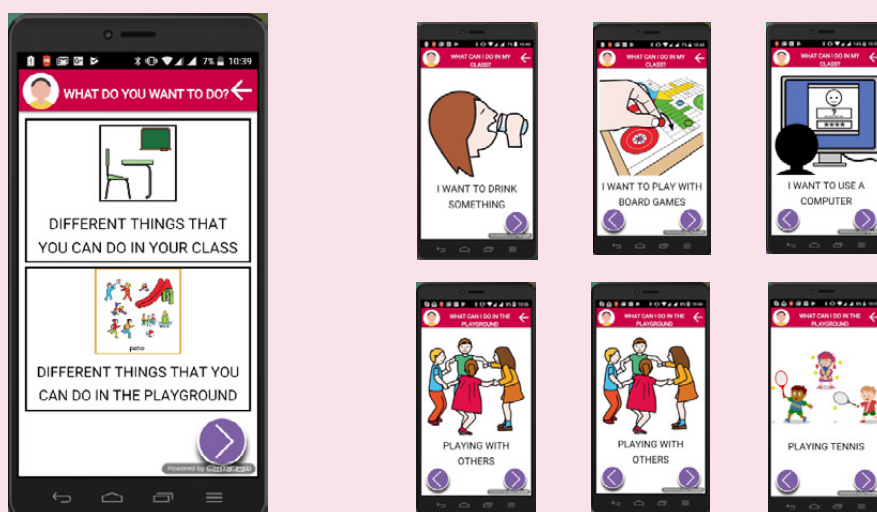


## → 8.6 Activities to promote decision making.

people with intellectual disability, from the tool we can develop supports that look for the development of skills like decision making. In this case, we could use the functionality of the conditional get closer to that end.

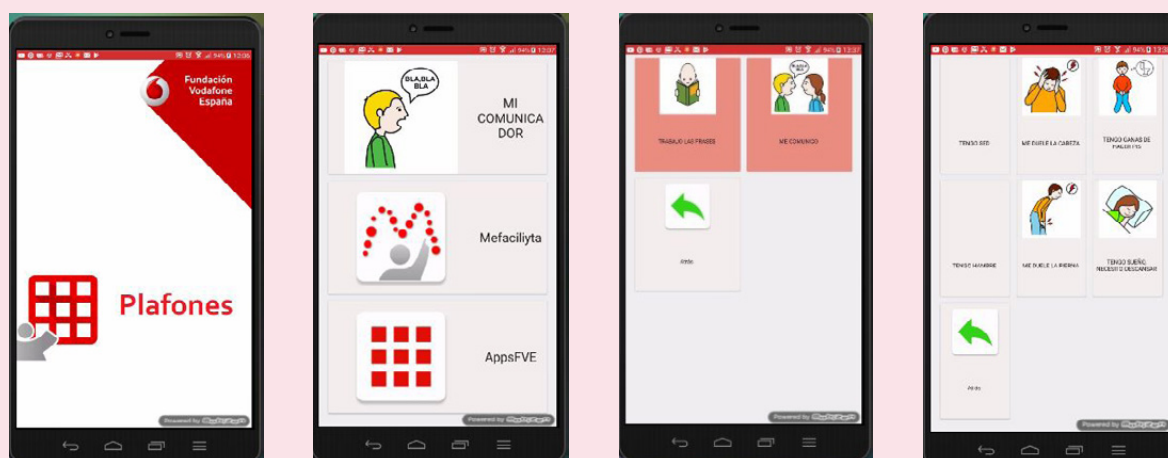
That functionality offers the user two different routes that he/she could follow. To be able to decide, and understanding whatever implies each one of the possible elections, he could express it using mefacilyta.





## → 8.7 Communication problems.

Communication is normally another area where persons with intellectual disability could manifest support necessities, both in the expression area as well as in the comprehension. In this case, from mefacilyta we could develop a communicator using the application plafones.



## 9. Evaluación

We understand the tool's learning process from a constructive point of view, placing the emphasis in the processes being carried out. In a similar way, we understand the evaluation as a continuous process, not as one isolated action. In this sense, we encourage to carry out a continuous evaluation.

In general terms, the evaluation is a process of data collection that allow us to get a valid and reliable information to make value judgments about the learning process. These judgments will help us to establish changes with the object of improve valuable educational activities.

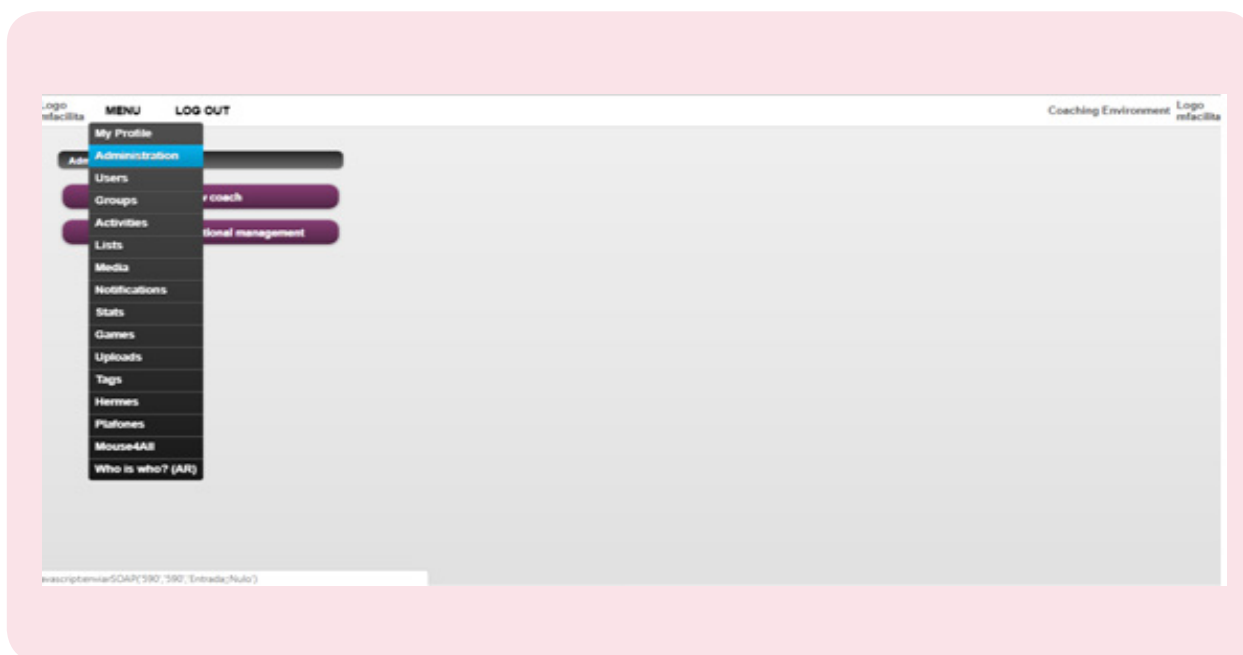
## 10. Tool 's quick-use manual for professionals:

We don't pretend with this quick-use manual to face all of the tool's contents because that will make this document a very extensive user's manual and would distort the global nature of this text. Nevertheless, at the end of this section we will attach links that offer Access to video-tutorials made by different members of the Desktop community where they explain in depth each one of the functionalities offered by mefacilyta.

As a reminder, we'll indicate that the tool mainly has two environments: the professional environment, that can be accessed through the **url: <https://mefacilytadesktop.fundacionvf.es/fachada/>**

### → 1. Management tasks of the professional environment:

- **Add new professional:** Displaying the options menu we access Administración (Management).



- To add a new professional we will have to complete the fields that we can see at the screen. The ID correspond to the logging. Name to be written in the initial screen of mefacilyta.
- In the field of entity, in case we create a profile for a new center, you will have to include the center's name. From that moment on, the entities could create new professional profiles maintaining that field.



Logo mfacilita MENU LOG OUT Coaching Environment Logo mfacilita

**My Users**

Q Filter items...

- jesuspuente
- Marita
- maricabello
- jesusbelda

+ Create User

+ Add User from others coaches

**Create User**

Name

User Id

Password

Confirm Password

Real users sharing this id: 1

✓ Save

✗ Cancel

Logo mfacilita MENU LOG OUT Coaching Environment Logo mfacilita

My Profile

Administration

Users

Groups

Activities

Lists

Media

Notifications

Stats

Games

Uploads

Tags

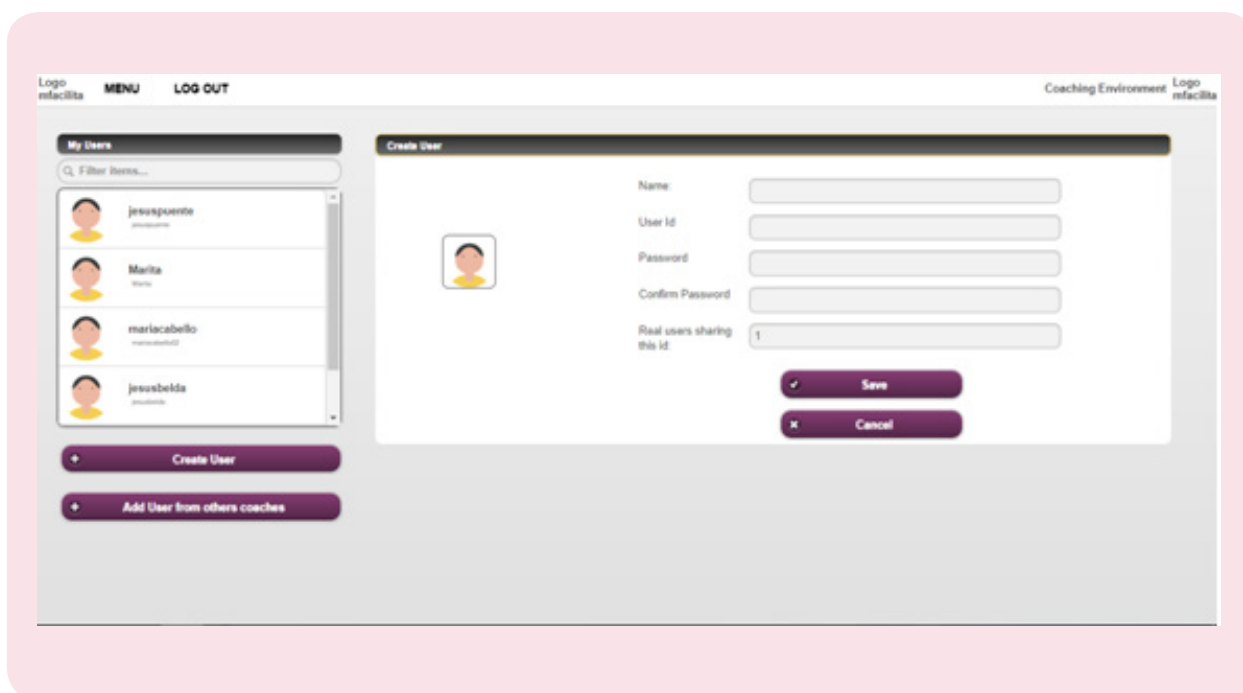
Hermes

Plafones

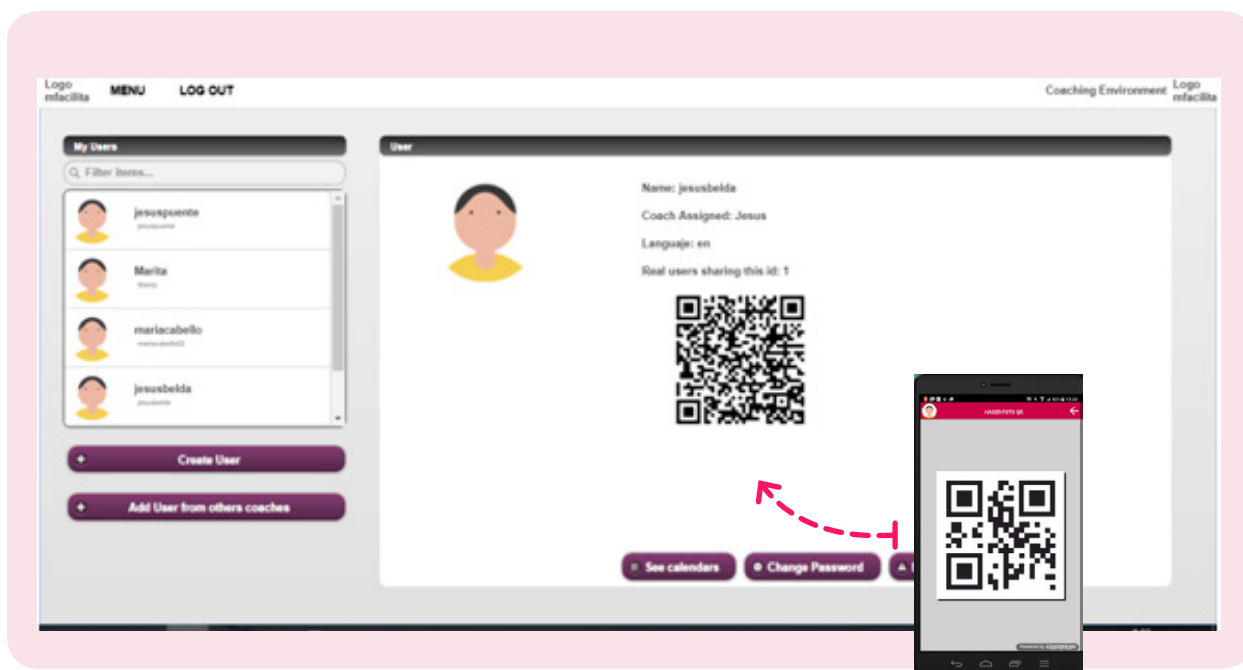
Mouse4All

Who is who? (ARQ)

- **Create user:** implies generating a profile for a user to whom we can assign supports, activities...

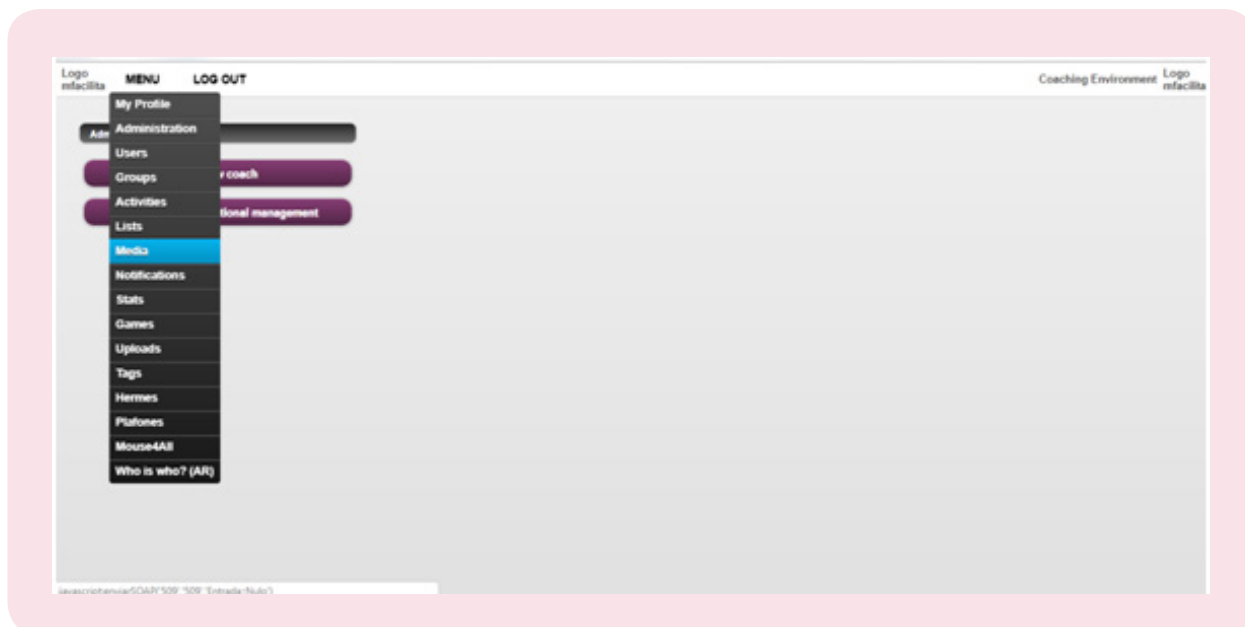


- In this case the field 's ID, makes reference to the user's logging on the device. We recommend to establish an ID and a password that you can memorize easily. After creating the user, pinching on the icon on the list of mis usuarios (My users) we could edit it, assigning picture modifying information ...

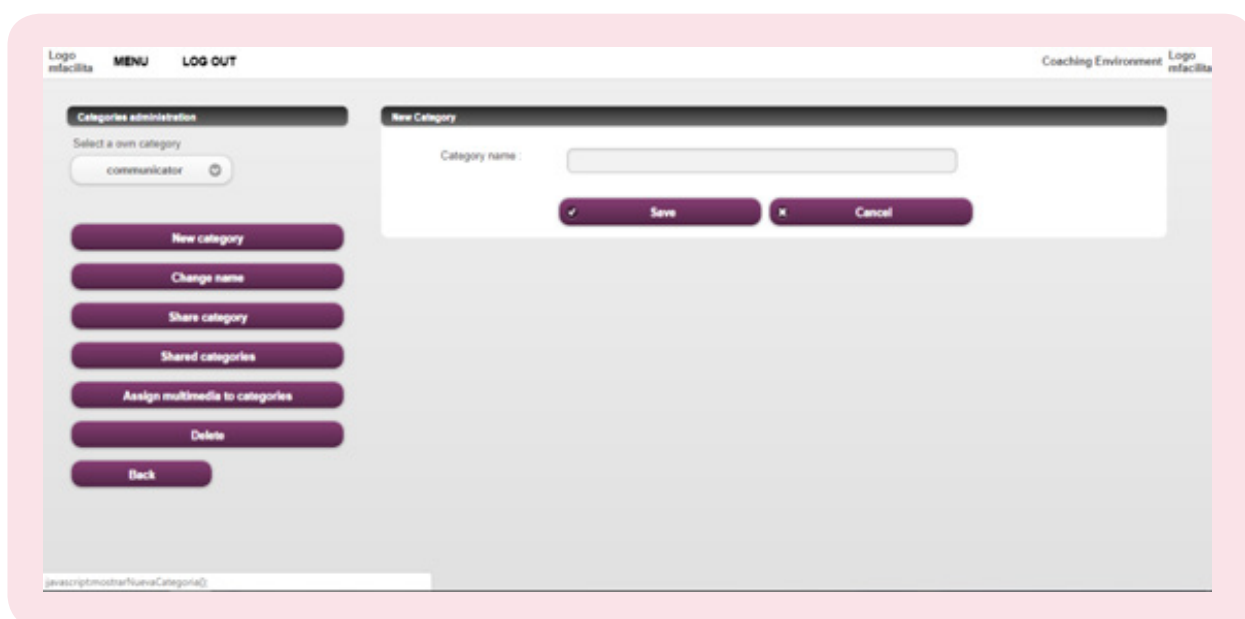


- When we create a user, the system creates a QR code, this code acts as a key to identify a user in the device, without having to introduce the credentials that we have defined when designing the end user profile. Simply, we will have to capture the code that the system offers, pressing the tablet's screen.

- **Upload multimedia to a platform:** This process allow us to upload to the platform multimedia contents that we'll use later to create supports. The uploading process can be made from a PC or from a user's Tablet or mobile device. To upload files from a PC, we deploy de options menu and select multimedia.



- **Category administration:** The categories will allow us to storage different multimedia contents in an orderly way inside our professional profile. The categories can be fed with private multimedia elements, in this case, this would be a proper category not shared. On the contrary, if we include contents classified as public in one category, this one could be shared. We could create as many categories as necessary to do it. We will access Administration of categories and create as many as we need.



- **Define the privacy policy of multimedias:** An important question to safely maintain the privacy of our users is to define the category with which we will like to upload a multimedia. The system offers two options.
- **Public:** All members in the Mefacilyta community have Access to that material.

- If we define any multimedia as public we will have to place it in the public categories that appear by default when we deploy the public categories option. These categories will act as a search filter when we wish to look for contents that another partner have shared with the community.

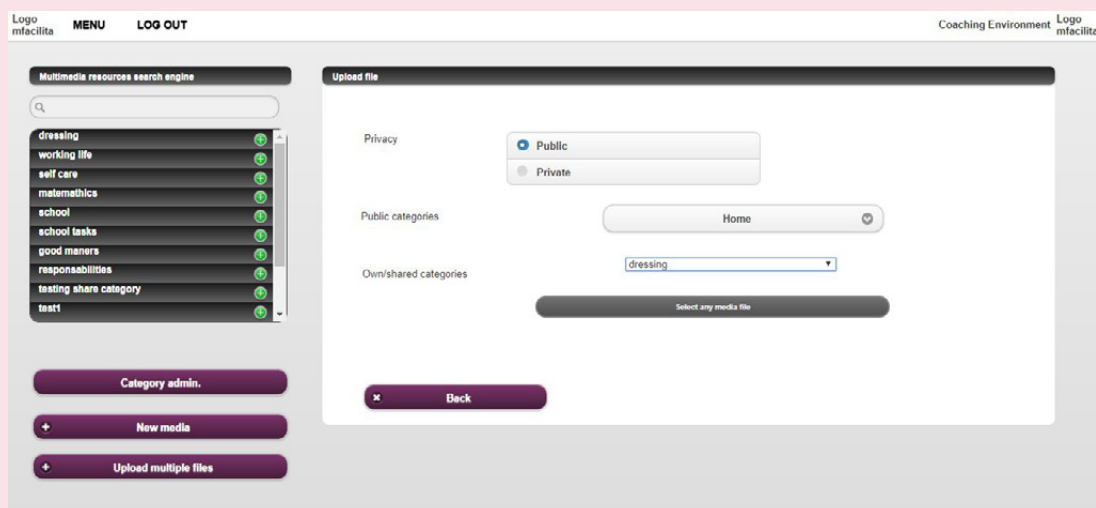
- **Private:** The contents under this classification are only visible for the professional who has uploaded them to the platform. Also, if I include these contents in a proper category I will be converting this category in one that couldn't be shared with the rest of the community members.

- In both cases, when we upload contents in a public or private way, we will have to fill all fields before uploading the image, video or audio.

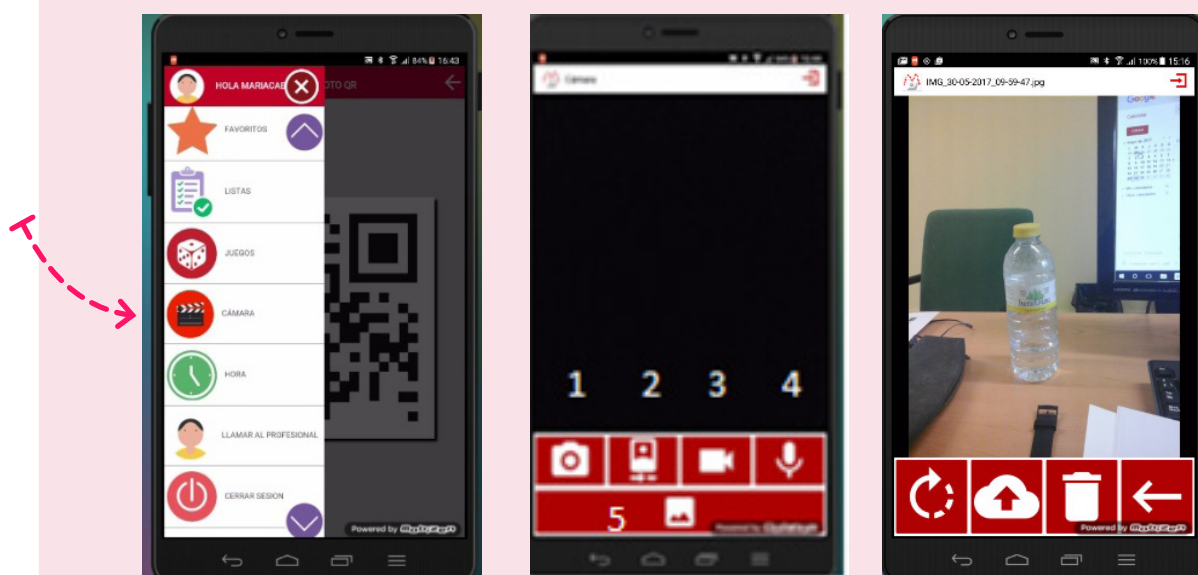
## → Uploading pictures, videos and/or audios.

- We will have to select what type of files we want to upload.
- When we choose the video format, to upload it from the computer, we have to place previously in Youtube. The system will ask us for the video's URL in Youtube. In the section "Uploading files from the tablet, we will see how to upload videos without previously placing it in Youtube."

- **Multiple uploading of files:** This option will allow us to upload multimedia elements to a platform in a massive way. This is an operation that speeds up the uploading of elements, and as always when talking of multimedia we will access this option from the multimedia option, in the main menu.

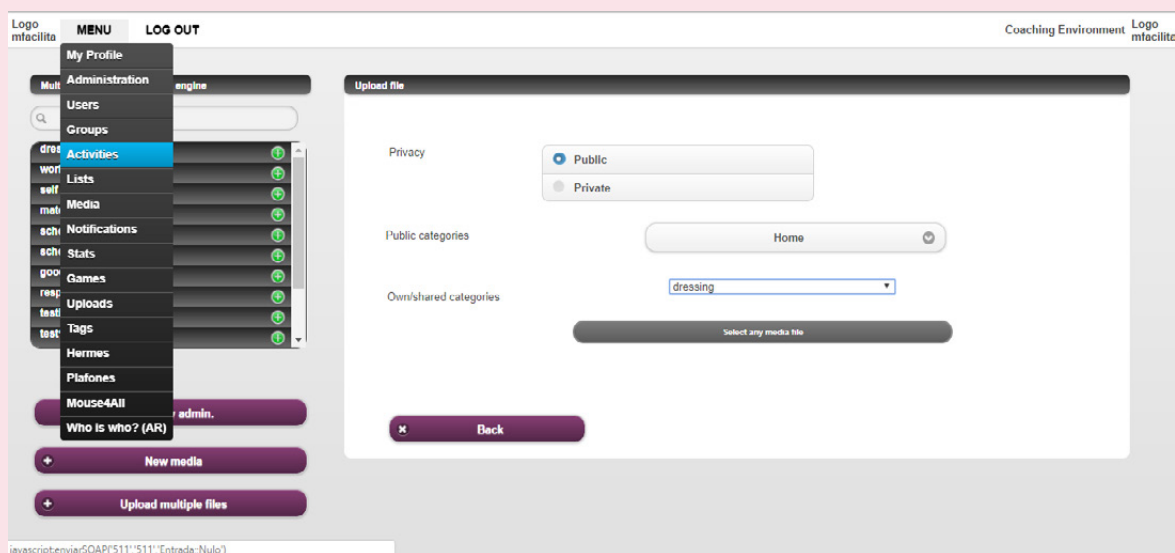


- After defining the privacy policy that we want to give to the multimedia files we upload in a massive way, we will have to click on Select any multimedia file. To select the different files we will have to keep pressed the control key while we click on the files we wish to upload.



## → Uploading pictures /videos/audios from the tablet.

- Another way to upload multimedia elements to a web platform is using a user's interface. To do that, we will have to identify in the Tablet one end user created from our professional profile. Once this user is active, if we Access to the Camera function, we'll have the possibility of taking pictures (1), activate the front camera (2) record videos (3), record audios (4). After taking the picture /record the video or audio, we will press the button 5. That way we will access to the Gallery and while we press the button of the cloud we'll start the uploading process to the image. This image will be always be stored in the personal category of the reference professional.



## → Design and elaboration of activities/supports.

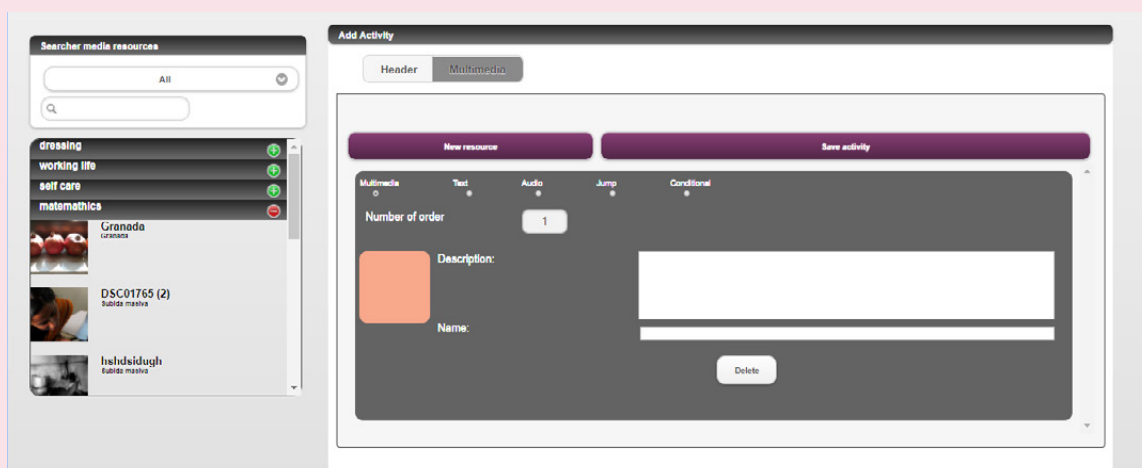
We call activity or support the resource elaborated by a professional who intends to facilitate the development of a task in the part of a user, sequencing it step by step using multichannel information.

- The supports or activities have a **header**, or a cover that helps the person with D.I, to identify a specific support differencing it from the rest. The header's design implies to assign one image that could be recognizable by the user and explain in a general way the support content. To do that we open the category in which we have placed the image, we click on it and without freeing the left button of the mouse we drag it to the box highlighted in orange.

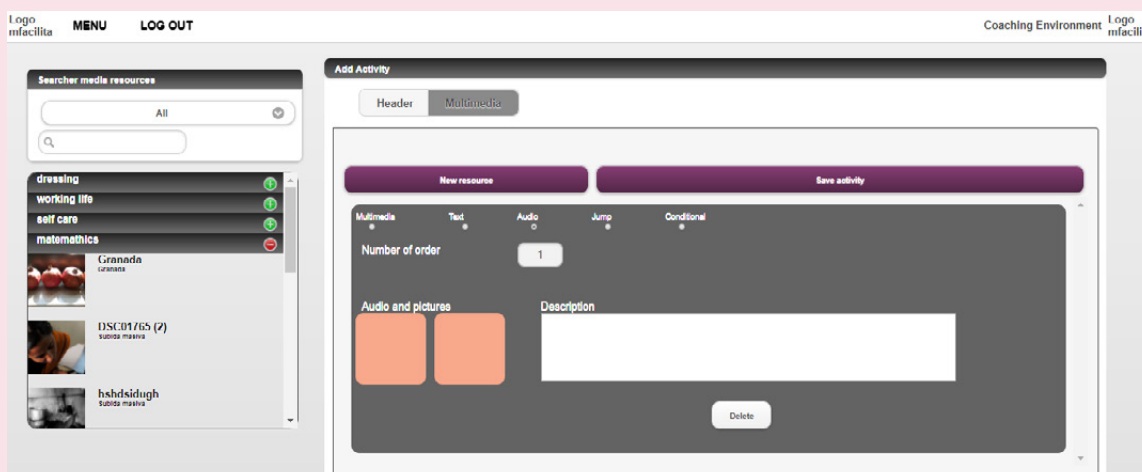


- In the same screen, we will have to select in the first place the scope to what the support belongs, and also the scenario, option that appears once defined the scope. This categorization of the supports Works like a search filter. If we mark the box where it says template we´re converting this support on a public resource that can download, adapt and employ any entity. The selected scopes and scenarios will act as searching filters of public supports.

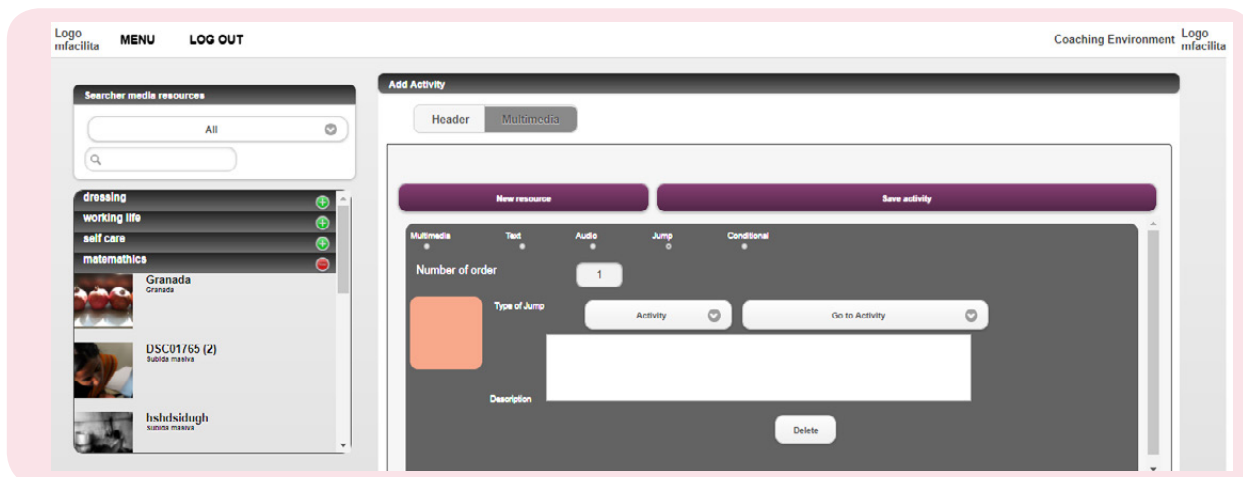
- Once we have completed the header, we'll press the multimedia button that appears on the right and we'll start to build the activity.
- As we said, one activity has a sequencing structure. The number of elements that conforms the sequence or activity is completely personalized. The steps or computer screens that the activity could offer can also be of different types.



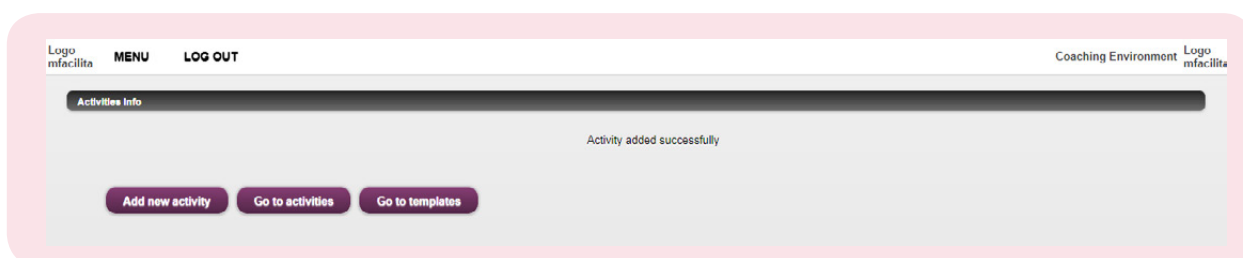
1. We can build up the activity incorporating images or videos, we'll have to press the button New resource each time we wish to include a new one.
2. We can build up the support, including only text. To do that we'll click the option 2 (where it says text)
3. We could include a resource conformed by one image and one audio, to do that we'll use the audio option. In this case, we'll have to incorporate a file of audio and one image. Later, the system will melt it and the user will see the image and when he press on it, he will get the audio we have incorporated. (that is, multichannel information)



4. Option four (jump) makes reference to the possibility of incorporating in some of the activity elements a link or a jump towards another activity or game. It will necessary to build previously the activity or game.



5. The conditional is an option that will allow us to offer two different sequences to the user. After using this resource we won't be able to include another one. This means we have to use it as a last resource of the sequence. In the same way that in the case of the games, we need to have the activities previously build.



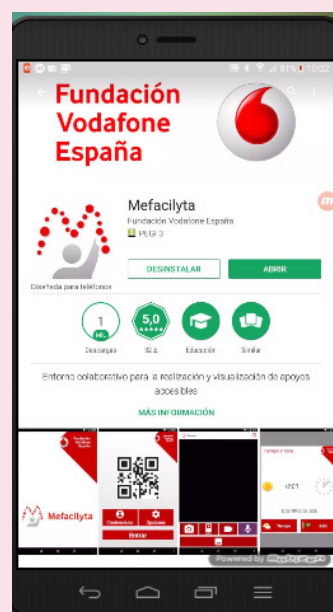
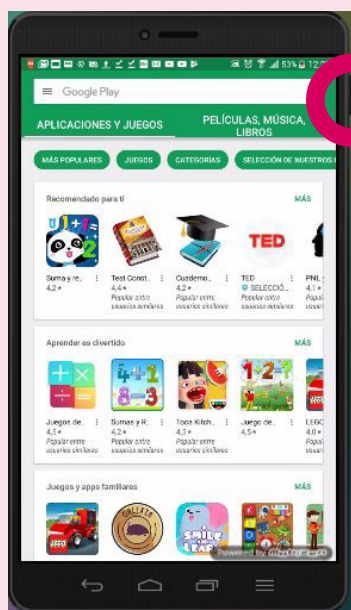
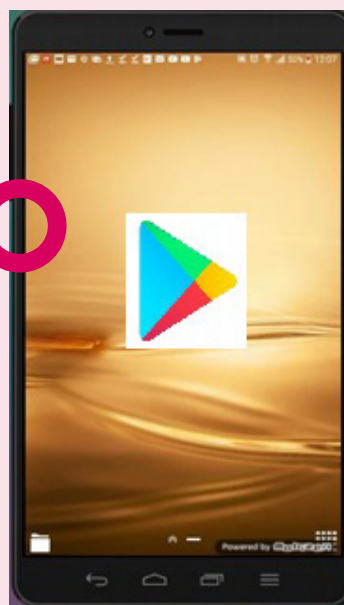
6. Lastly, when we have finished the process of building the activity, we will click in the save button and the activity will be included in our activities portfolio, we'll see a message saying that our activity has been saved satisfactorily.

## 11. QUICK-USE MANUAL FOR THE END USER

1. Enter in the play

2. Write Mefacilyta Desktop

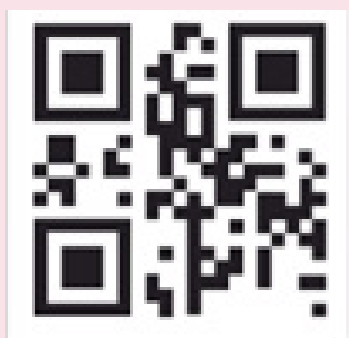
3. Download the App



## → TWO OPTIONS TO IDENTIFY THE USER IN THE TABLET

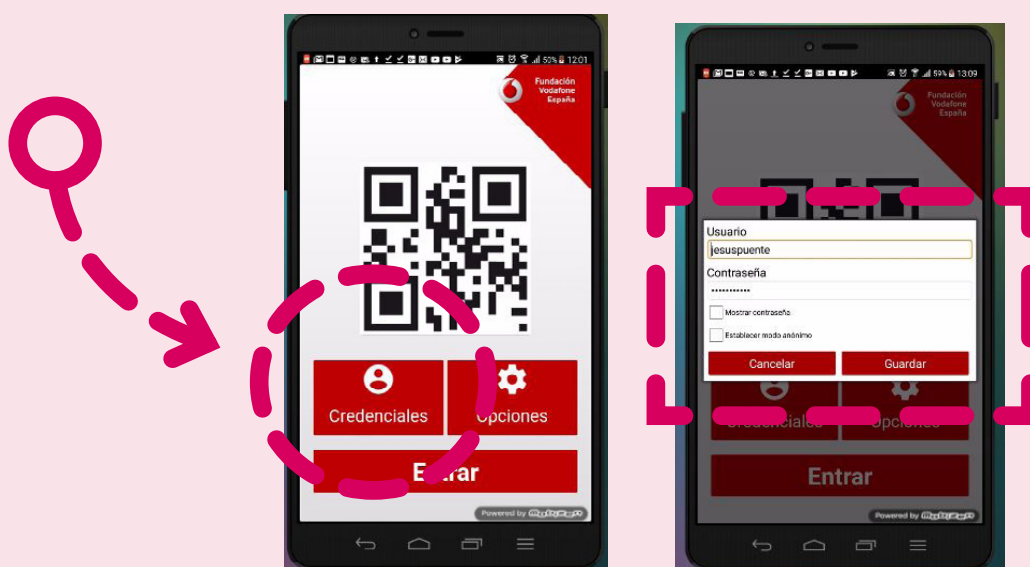
### ■ OPTION 1:

Press the code QR, and capture the code given to you by your professional



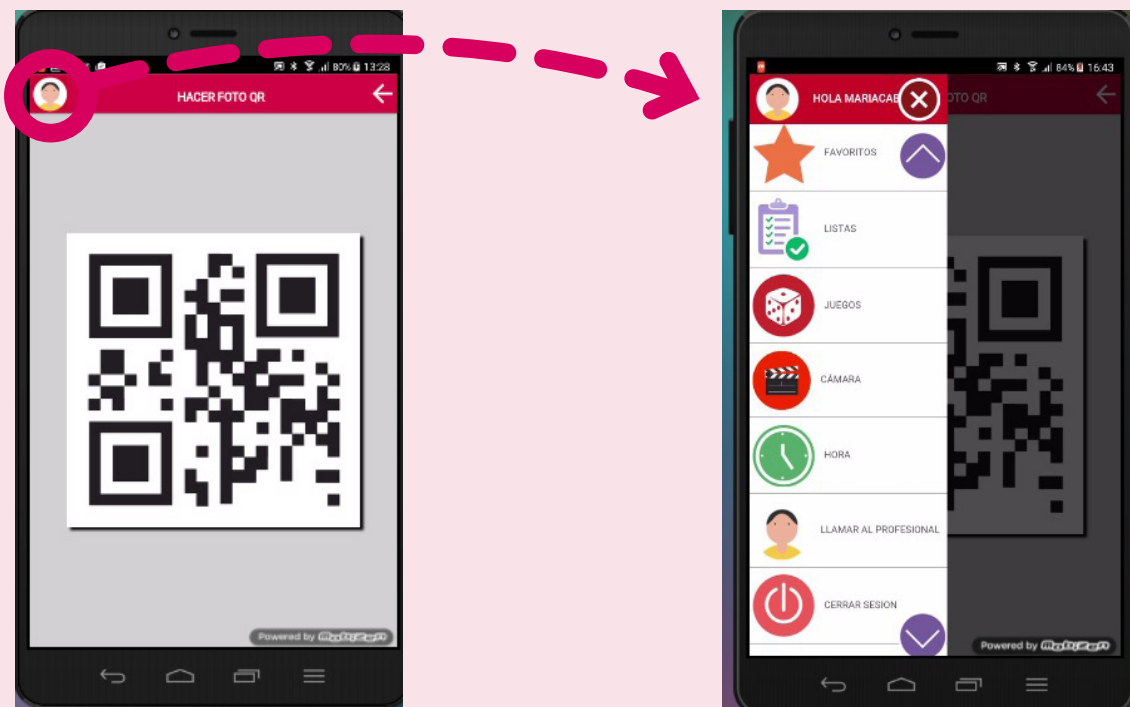
### ■ OPTION 2:

Press in credentials and write your name and password

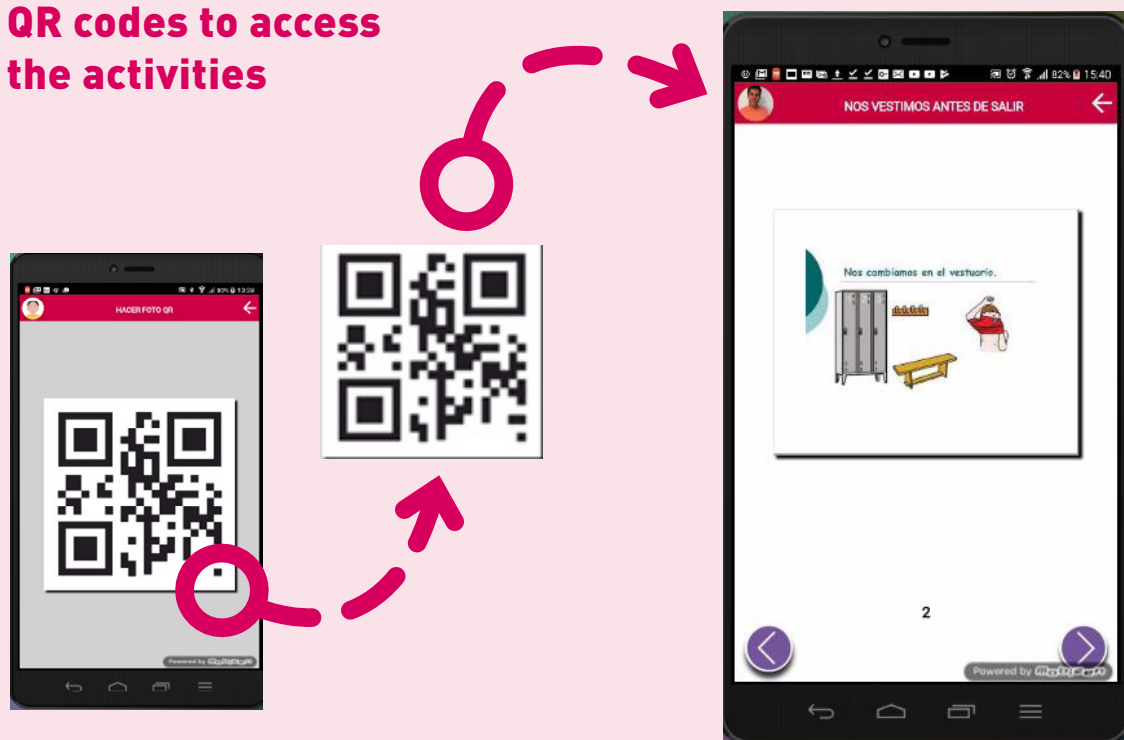


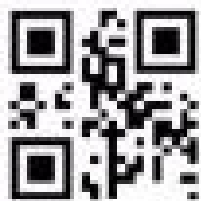
## → THE USER'S MENU:

### 1. Press the picture to deploy the menu



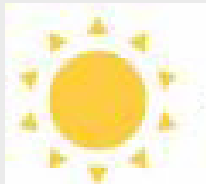
### 2. Use the reading QR codes to access the activities





HACER FOTO QR

Capture the QR code to see the support.



HOY

Touch the sun to see today's activities.



SEMANA

Touch the calendar sheet to see what activities or tasks do you have during the weeks.



FAVORITOS

Pulse the star to Access your favorite supports or the more used.



LISTAS

Revise your tasks and place a tic in the ones you do



CÁMARA

Access the camera and send to your support person, pictures, videos and audio



Fundación  
Vodafone  
España



ORDEN HOSPITALARIA de  
SAN JUAN DE DIOS