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PILOT EXPERIENCES
Testing open educational resources: app and e-learning course
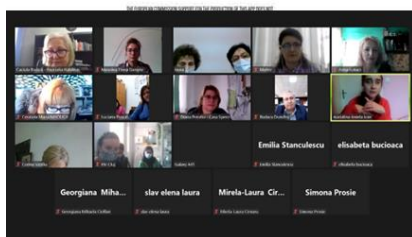
INTERNATIONAL REPORT

October – December 2021

Io3a3/io4a3.Testing the app and the e-learning course

AppForDem project

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INDEX

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1. THE PILOTING PROCESS

In the last stage of the AppForDem project, partners carried out a piloting process aimed at testing the educational app "dementia and daily living" and the e-learning course "specialized care for caregivers of people with dementia" with the project target groups in Romania, Italy and Spain.

In this regard, from October to December 2021, ANS, HABILITAS and MENSAJEROS organized two workshops in their countries aimed at evaluating the usability of the aforementioned learning resources.

A total of 37 organizations and 84 participants (20 in Spain, 17 in Italy, and 44 in Romania) were involved in the piloting process. The profiles of the participants were diverse: doctors, nurses, occupational therapists, physiotherapists, psychologists, dementia experts, teachers, social workers, project managers, directors of nursing homes, and informal caregivers. (see this information at the end of the document).

After completion of the piloting process, the partners will disseminate the national and comparative reports to the target groups and propose to the education authorities to implement the AppForDem training resources in the national training programs for the long-term care sector.

Piloting process methodology

After developing and finalizing the open educational resources (IO2), they were submitted to the end users during the pilot phase (IO3 and IO4). The objectives of this phase were to allow validation of the resources developed during the previous phases through concrete use during the care of people with dementia.

Two workshops were organized in Spain, Italy and Romania addressed to the target groups of the project. Participants tested the resources and materials, exchanged opinions about them in two online meetings and completed an evaluation questionnaire at the end of the process.

The mentioned evaluative questionnaire was administered to participants that aimed to investigate the evaluation of the resources in terms of duration, interface, usefulness, clarity, and the degree of satisfaction in using the resources. This report aims to present the results of the pilot, with particular attention to the opinions, comments and suggestions that emerged in both workshop sessions and from the evaluation questionnaires.

The table below describes the piloting processes in the participant countries:

The piloting process		
Spain. The piloting process was organized from October to November 2021. It began with a presentation meeting addressed to nursing home directors and professionals in long-term care services on 14 October 2021. After this meeting, the Edad Dorada Mensajeros de la Paz Association sent materials and agendas for two online workshops to the participants. 20 participants with different profiles in long-term care	Italy. The piloting process in Italy led by the partner organisation *Anziani e non solo* lasted from October to December 2021. It started with targeted invitations to formal and informal caregivers of people with dementia as well as professionals who could play the role of promoting the use of resources in the care sector. In parallel, the resources and the pilot were spread through strategic dissemination activities via ANS channels and	Romania. The piloting process was organized in November and December 2021. Asociatia Habilitas sent materials and agendas for two online workshops to the participants. 47 participants, with different profiles in long-term care activities, were involved in the piloting process.

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activities were involved in the piloting process.	stakeholders' circle. The Italian pilot involved a total of 17 participants with different professional profiles in long-term care activities and was held online on the Zoom platform in order to allow the involvement of various relevant professionals both locally and nationally, and therefore distant from the partner organisation's location.	

Sending materials

According to the guidelines defined for IO3 and IO4 for the piloting process, each partner organized two workshops aimed at testing the educational app "Dementia and daily living" and the e-learning course "Specialized care for people with dementia". To organize the testing process, the partners sent the following information to the participants a few days before starting the pilot activities in the participant countries.

- The link to the app "Dementia and daily living";
- The link to the E-learning course "Specialized care for people with dementia";
- The Didactic guide containing instructions for the use of the resources; and
- The Evaluation questionnaire.

The delivery of the aforementioned information was organized as follows:

Sending materials		
Spain. Participants received an email with the questionnaire, links and basic information to participate in the piloting process by email on 10/15/2021. The timetable for the piloting activities was as follows: • 26th October 2021. Online meeting for testing and discussion of the app "dementia and daily living. • 11th November 2021. Online meeting for testing and debate on the e-learning course. Online. • 22nd November 2021. Online meeting: presentation of results.	Italy. At the time of the invitation, information materials developed within the project were sent to the participants to contextualise the project and the reasons for the invitation. The piloting activities were held on the Zoom platform in two different sessions of 2 hours each, one month apart: • The first one was held on 4th November 2021 and • the second was held on 2nd December 2021.	Romania. Participants received an email with the questionnaire, links and basic information to participate in the piloting process by email. The timetable for the piloting activities was as follows: • 23th November 2021. Testing and discussion of the app "dementia and daily living. • 07th December 2021. Testing and debate on the e-learning course. Online.

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1. WORKSHOPS IN SPAIN

In Spain, a face-to-face meeting was held to present the piloting process to a group of nursing home directors and other professionals in long-term care activities in the city of Toledo on October 14, 2021. The piloting process was also publicized through social media where an informational brochure was disseminated at this link: Appfordem_Piloting activities Spain

Online meeting on 11ᵗʰ October 2021. Testing the educational app

The participants tested the app **"Dementia and daily living"** from October 11 to 26, 2021. On the latter date, an online meeting with 13 participants was held to exchange opinions about the app, following the nine indicators of the questionnaire.

The meeting started with the presentation of the application "Dementia and daily living". Participants were then invited to comment on the nine indicators of the agenda.

In relation to the **contents and methodology of the app**, participants acknowledged that the person-centred approach used to build the application is very important for care activities. They agreed that the topics are well described, which makes them easy to understand. They found the topics "family support", "what is dementia" and "ethics of care" the most interesting and suggested some improvements to the topics "eating and drinking", "toileting" and "personal hygiene".

Regarding the **indicator "duration and timetable",** participants highlighted that the application is well defined, its user-friendly design allows caregivers and students to easily find any information they need. One participant commented that "as a caregiver in a nursing home, what I appreciate most is that the app is easy to access and allows me to easily find the information I need".

Regarding the **content and didactic resources**, one participant valued positively the presentation of real situations of everyday life and commented that the content respond to the knowledge level and social skill needs of caregivers of people with dementia. One participant commented that "the app is a great help for family caregivers, as they often don't know how to deal with certain situations". One participant commented that she found it a very useful tool for caregivers that "all the care staff at the nursing home she manages have downloaded the app".

Concerning **technical and educational resources,** one participant emphasized that "all the topics offer very good help, advice and relevant information in bold letters that make it easier to find the concepts necessary for care in daily life. It is easy to find the necessary information". Participants agreed that the self-assessment tests have allowed them to know the level of learning achieved after reading the topics. However, they pointed out some questions and answers that were not very clear and need to be corrected (see below). On the graphical summary (comics at the end of each topic), one participant highlighted that "the comics take away from the seriousness of the topic, but not the importance. It's like a reward once the topic is finished".

In relation to the general satisfaction with the app, it is considered that it is a tool to help the caregiver and especially the family caregiver and care staff with low level of knowledge about the disease. One participant said that the app "can help caregivers feel much better about caring for people with dementia".

Suggestions for improvement:
- The topic "Eating and drinking" needs an explanation of the concept "solid colours" in the Spanish language.
- In the questionnaires, some questions need to be improved: Topic 6, question 5 and in Topic 8, question 3.
- Personal hygiene topic: an expert considers it is not necessary to detail a list of products.

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- In the topic Toileting:
  - Word changes needed in the subtopic diaper use: "target" and "accident". They suggest removing the two first paragraphs, since they affect personal autonomy.
  - One participant considers there is a contradiction in bathroom privacy: if the door is left open to be able to find the bathroom and then the door is close while in the bathroom. For her this is a contradiction. It is suggested to remove the option: keep the door open (item 5)
  - A more detailed explanation is needed for incontinence. A participant suggests removing the first paragraph, which deals with the risk of falling and incontinence.

Online meeting on 11th November 2021: testing the e-learning course

The participants tested the e-learning course "Specialized care for people with dementia" from October 11 to November 11, 2021. On this last date, an online meeting was held with a total of 14 participants to exchange opinions about the course, following the nine indicators of the questionnaire.

The meeting began with the presentation of the course and the e-learning platform by the coordinator, who then presented the agenda and invited the participants to comment on the 9 indicators.

(P2) Regarding the content and methodology of the e-learning course, the participants agreed on the quality of the learning content. They found the content to be very clear and easy to understand. They considered it a comprehensive course that teaches the most important topics for caregivers of people with dementia. In this sense, the content, the lessons, the questionnaires, the links, and the case studies were positively valued.

(P3) Concerning the case studies, the possibility of reflecting on concrete and real situations of care for people with dementia is positively valued. The content of the case studies helps to eliminate fear of caring for someone with dementia, to clarify the false beliefs and myths that exist around these diseases. Solving the case studies is considered very positive for healthcare staff with a low level of knowledge of the diseases that cause dementia. Participants agreed that the case studies will be very useful for a better understanding of individualized care plans for people with dementia in nursing homes, long-term care services, and family care. In reference to case study no. 3, the specific solutions proposed were positively valued. However, two participants emphasized the importance of the role of the tutor to explain some specific solutions to daily care: for example, teaching how to handle the rocking chair is very important for the care of people with dementia.

(P4). The participants considered that the e-learning course has a lot of useful information for caregivers of people with dementia: content, videos, links, exercises, case studies. They agreed that more than 30 hours would be needed to review all the content and study the cases in depth.

(P5) They considered that the connection between the application and the e-learning course is very interesting to learn about caring for people with dementia. They considered that the app presents the topics in a simple and concrete way and the caregivers and students can learn more about the individual topics in the e-learning course.

(P6) The participants agreed that computing resources are adequate for the objectives of the e-learning course. The interactivity with the questionnaire, which returns the answer quickly, was positively valued.

(P7) The participants were very satisfied with the usability of the e-learning platform as they found it very easy to use. All the learning resources are intuitive so they will be useful for users with a low level of digital competence. The materials in pdf format were very well appreciated since they allow offline learning by downloading the materials in pdf format.

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(P8-P9). The participants showed a high level of satisfaction with the e-learning content and materials. They congratulated the work team on a job well done. They emphasized module 1, especially the units on the different types of dementia. The case studies were positively valued, highlighting cases 3 and 4, since they explain common situations in nursing homes. One participant said: "it is one of the best courses I have taken on this subject".

2. WORKSHOPS IN ITALY

The participants tested the app **"Dementia and daily living"** and the E-learning course "**Specialized care for people with dementia"** from November the 4th to December the 2nd 2021.

On the first date, an online meeting was organized to present the ICT resources, explain their use and purpose of the piloting.

On the latter date, an online meeting was held to exchange opinions about the app and the e-learning course

Online meeting on 4th November 2021

The 1st meeting was focused on presenting the resources and explaining the steps to access and use them (considering that many of the participants did not have advanced ICT skills).

After a short introduction to the project and its aims, we first presented the APP, using the "screen sharing" function from the mobile phone, we were able to illustrate all the steps to be followed and all the features of the APP.

Following to that, we presented the e-learning course. Again, sharing the screen, we showed the steps to be undertaken and the different components of the course (PDFs, case studies, Scorms).

Finally, we explained the criteria that were going to be used to assess the resources, as per the online questionnaire.

At the end of the meeting, we remembered to participants that they were going to have a month to try the tools and that a 2nd meeting was going to be organized to collect their feedbacks.

Online meeting on 2nd December 2021

In relation to the **contents**, the general feedback of participants was that they are very comprehensive and suitable, especially in an initial phase after the diagnosis, when the informal caregiver doesn't really know what he/she should expect, or for a less-experienced professional. One of our participants said:

- *"If I had this APP at the beginning of my career, I would have avoid making many mistakes"*

Others said:

- *"Although I work in this field, I could still find new information in these resources, things I didn't know"*
- *"The graphic summaries at the end of each chapter of the APP are very sweet"*

On the other hand, there were also some suggestions for improvement, for example:

- Making explicit reference to the fact that while the APP and the e-learning are useful to better understand dementia, they can not replace the advice of a professional, so the carer should be encouraged to reach out to health care services or NGOs.
- Adding references to the importance of building support networks, to reduce the care-burden

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- Adding a sort of "stress thermometer" which, based on certain answers you give, urges you to reach out to professional help
- It should be said more about the emotional impact on carers – for example the fact that feeling guilty or inadequate is normal. The feelings of carers should be recognised and mirrored, so that carers feel understood.
- Something more should be said in relation to what to do when the care-recipient refuses using a pad, as it is a very common situation (for example it could be suggested to start slowly, by using it only when going out and then progressively increasing the use)
- A participant suggested to explain better whether the diagnosis should be communicated or not to the person with dementia, as the current content seems a bit ambiguous in this regard
- There was some discussion in relation to the section "living well with dementia" of the APP (Module: understanding dementia) since it seems to be very simplistic and a bit frustrating for the carers reading it. It should be either rephrased (not "living well" but maybe "practical suggestion" and /or expanded as the current advices seem quite limited to be able to "live well")
- It was very much appreciated that when doing the self-assessment test there are feedbacks to the given replies

In relation to **technical aspects / usability**

While all participants managed to use the ICT tools quite easily, some suggestions to improve usability were made:

- Some people mentioned that they had problems in downloading the APP (however, others didn't – so we couldn't say whether it was a matter of internet connection / old device or a technical issue of the APP itself)
- When entering the e-learning from a mobile phone, there is a calendar showing which disturbs the vision and it is not intuitive how to remove it
- Generally speaking, people said that it was not really friendly to use the e-learning from a mobile phone – maybe it should be recommended explicitly to use a tablet or a PC.
- It should be made more direct the link from the APP to the related module in the e-learning. I.e.: the APP should link to the relevant unit and not to the website in general
- It seems that the e-learning includes some unnecessary steps which complicate navigation. For example, there is an intermediate step to enter the module (you have to press a "enter" button) that should be removed if possible.

In relation to the **piloting** method, some participants said that they didn't really had the time to use all the resources properly, as their caring role keeps them very busy. Also, the fact that some participants do not have a PC but only a smartphone, led them to use more the APP than the e-learning because of the usability issues mentioned above when entering the e-learning from a phone.

2. WORKSHOPS IN ROMANIA

During the test meeting of the educational application AppForDem, dated 11/23/2021, 34 people participated. Below are the participants in this meeting and their profile. The following participants tested the app **"Dementia and daily living".**

Online meeting minutes – Testing the educational app. 23.11. 2021-

The meeting started with the presentation of the application "Dementia and everyday life". Participants were then invited to comment on the seven indicators of the agenda.

 Participants provided feedback on the educational application – It is presented below:

- *"I easily accessed the educational application. I had no problems accessing the app. The content is very well structured and the interface is intuitive. Congratulations for this excellent project."*
- *"Very good content, given that we face many situations in which caregivers are not properly trained. There is no training and accreditation to help the caregiver address person-centered care. There is a lack of professionals and also specialization courses. There is a stigma on the older people in Romania and unfortunately the older people are no longer valued as a resource but as a burden."*
- *"A useful application especially for pointing out some extremely useful information in the older people care field. "*

Online meeting minutes – Testing the e-learning course. 7.12. 2021-

The following participants tested the e-learning course "Specialized care for people with dementia". On 07/12/2021, an online meeting was held to exchange opinions about the course, following the nine indicators of the questionnaire. This meeting was attended by 26 people.

The meeting began with the presentation of the course and the e-learning platform, after which the participants were asked to comment on the 9 indicators. Their comments are presented below:

- *"DGASPS District 3 - HOW TO USE THE RESOURCES - in our center the resources from the e-learning course - we will use them as they are, but also in collaboration in teams. It will come for helping the staff. The material is understandable to everyone, it is well adapted. We will probably print the information on the cards and present it. The materials are very well presented. The steps are very well taken. First of all, I will work with the staff of the center where I work. It is useful to go through the material when the staff is having problems. The information is short and to the point. The associated learning of visual support is much easier. In terms of topics, it's a good topic, but it can be improved in segments - to present more information about dementia. I haven't taken the e-learning course yet."*

- *"Spero Home - What I find very good about the application is that you can study it anywhere, on the bus, when you have little time. Presents information that staff face every day."*

- *"Specialty inspector - From the perspective of specialists it is a review of all aspects useful to the specialist. Interesting to review the information. It would be extremely useful for informal carers, especially from the perspective of case studies. These case studies are also useful to specialists in creating the intervention plan."*

- *"Specialty inspector - It is very useful from the perspective of simple people who are not specialists. I had a loved one in the past and if I had this knowledge then I could have helped better in the care process."*

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3. PILOT EXPERIENCES RESULTS: QUESTIONNAIRES AND WORKSHOPS

Below is a report with the main results of the piloting process. The report follows the 9 indicators proposed in the guidelines for IO 3 and 4. The quantitative information in this report shows the responses of 10 participants.

1. Organization of the pilot experience

The majority of the participants are very satisfied with the pilot experience of the app and the e-learning course: information, meeting deadlines/schedules and delivery of training material. Participants consider that the piloting process was well organised. They show a high level of satisfaction with the information about the process, with schedules, delivery of training material and presentation of the workshops.

1. Organization of the pilot experience		
Spain. 80% of the participants were very satisfied with the pilot experience of the app and the e-learning course: information, meeting deadlines/schedules, delivery of training material, etc.	Italy. 50% of the participants were very satisfied and 50% were satisfied with the pilot experience of the app and the e-learning course: information, meeting deadlines/schedules, delivery of training material, etc. 2 informal caregiver that filled in the questionnaire stated that they didn't used the E-learning course but only the app, therefore they didn't express their opinion for this resource.	Romania. The majority of the participants were very satisfied with the pilot experience of the app and the e-learning course: information, meeting deadlines/schedules, delivery of training material, etc.

2. Contents and methodology of the app and e-learning course

Participants consider that the topics of the app are very appropriate for the needs of those caring for people with dementia. They agree that the learning content is presented in a simple way, it is concrete, clear and easy to understand. The e-learning course is highly valued by participants. The learning content in the modules and units is very important for caregivers and students. The course uses simple language and the content is very easy to understand. They consider it a very useful course for formal and informal caregivers of people with dementia.
Most participants are "very satisfied" with the content and methodology of the app and the e-learning course, so we can say that this content is a very good combination of theory and practice, in terms of questionnaires and case studies and is adapted to the planned program.

2. Contents and methodology of the app and e-learning course		
Spain. 80% of the participants were very satisfied with the following items: 2.1. The contents were adapted to the planned program (didactic guide); 60% with the adaptation to their training needs	Italy. 43% of participants were very satisfied with the content and methodologies used. Of the total input received, 2 informal caregivers refrained from answering the questions on the case studies and	Romania. Most participants are very satisfied with the content and methodology of the educational application and the e-learning course. Only two people scored the item on adaptability to the student's

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(2.2.); and 70% with the suitable combination between the theory to the practice in the questionnaires (2.3) as well as in the case studies (2.4).

App content:

- One participant commented that *"the contents are very appropriate, easy and simple to understand"*.
- One professional said that *"App contents seem to be oriented to home care or for those professionals who have little knowledge about how to deal with the care of a person with dementia"*.

Content of the course:

- One participant said: *"The content of the e-learning course seems to me very complete and comprehensive and have provided me with a lot of necessary information for my daily work"*.
- Another opinion was the following: "For professionals, such as occupational therapists, psychologists, etc., the content of the course will be useful to remember *different aspects of caring for people with dementia"*.

self-assessment questionnaires because they did not use the course.

One participant commented that she finds all of the practical and general dementia presentation texts/references in the app to be excellent, but recommends reviewing some of the texts pertaining to ethical aspects of care and family support.

needs, with "Satisfied" and only one participant is "Dissatisfied" with the same item. 2 participants provided more detailed feedback. These are presented in the following:

- *"The content of the course as well as of the application was correlated with the theory and practice, and the questionnaires are a good evaluation benchmark."*
- *"The online questionnaires are really useful because they give you the opportunity to test your knowledge."*

3. E-learning course and app duration and timetable

Regarding the application, the participants agree that a topic can be consulted quickly as the index of the app is well defined. They find the letters in bold very useful to find the necessary information. Participants consider that the course has a lot of useful information for caregivers of people with dementia (contents, videos, links, exercises, case studies). They agree that it would take more than 30 hours to review all the content and study the cases in depth. Regarding the 30-hour duration of the course, all participants are satisfied, so we can say that this was enough according to the aims and content described in the didactic guide.

3. E-learning course and app duration and timetable		
Spain. Regarding the app, 80% of the participants were very satisfied as they can quickly find the necessary information by consulting the app index.	Italy. 40% were very satisfied with the documents, materials, and instructional resources in the app and course. However, 2 of the	Romania. Regarding the 30-hour duration of the course, all participants are satisfied, so we can say that this was enough according to the aims and content described in

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| 80% of the participants were satisfied with the duration of the course They considered that the course has a lot of useful information for caregivers of people with dementia (content, videos, links, exercises, case studies). They agreed that more than 30 hours would be needed to go through all the content and study the cases in depth. | participants specified that they were referring only to the app. 50% of the participants were very satisfied with the questionnaires, exercises, and case studies as they are adapted to their training needs. | the didactic guide. Regarding item 2 of this indicator, only one participant scored it with "Satisfied". Only one participant provided more detailed feedback. It is shown below: - *"The duration of the course was commensurate with the complexity of the topics covered"* |

4. Didactic media (scorms, audiovisuals, pdf files)

The participants consider that the app provides good solutions for facing situations of daily life in the care of people with dementia, from a person-centred care approach. They also agree on the high quality of the documents and material of the e-learning course. Concerning the app and the e-learning course, they think that the learning content is understandable and appropriate for everyday situations. They also consider that the materials are up-to-date and agree that the questionnaires, exercises, and case studies are well tailored to their training needs.
Participants are "very satisfied" with the didactic media materials. They consider that the materials are based on the reality that caregivers face in the care they practice and emphasize the practical side which is very useful. The materials are very useful for practitioners providing a clear and concise structure of the information they need.

4. Didactic media (scorms, audiovisuals, pdf files)		
Spain. 80% of the participants were very satisfied with the information, documents and material delivered in the app and the e-learning course. Participants considered that they are understandable, suitable, and up to date. 70% were very satisfied with the questionnaires, exercises, and case studies as they are adapted to their training needs. Related to the app, participants considered that it provides good solutions to cope with daily living situations, based on a person-centre care approach. A participant commented that "The app provides a great help in home care, as often the caregiver does not know how to deal with certain situations".	Italy. 40% were very satisfied with the documents, materials, and instructional resources in the app and course. However, 2 of the participants specified that they were referring only to the app. 50% of the participants were very satisfied with the questionnaires, exercises, and case studies as they are adapted to their training needs.	Romania. Most participants are very satisfied with the didactic media (scorms, audiovisuals, pdf files). Only 5 participants are only "Satisfied" with the evaluation questionnaires, exercises and practical case studies, only 2 participants are only "Satisfied" with the up-to-date teaching materials and only one participant is only "Satisfied" with the understanding and adequacy of the teaching materials . The following are the comments of two participants: - *"The materials offered are based on the realities known by those who provide care, emphasize the practical part in a very useful way."* - *"The materials provided are useful in our training as practitioners."*

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5. Technical and didactic resources

Participants think that the app is easy to download from Android and IoS/Apple stores and very easy to use. They consider that the guides and materials allow caregivers and students to follow the lessons well. The e-learning platform is very intuitive and they offer enough support resources (links, videos, bibliography) for self-study. Self-assessment tests allow users to know the level of learning achieved.
Most participants are "very satisfied" with the indicator on technical and teaching resources. The item with which all participants are "Very satisfied" is related to applications, media communication and computing services, which are easy to use.

5. Technical and didactic resources		
Spain. 80% were very satisfied with the didactic guide and materials: these documents allow them to follow the content of the app and the e-learning course. They also consider that there have been enough support resources and links (6.2); and they consider that the self-evaluation tests have allowed me to know the level of learning achieved. (6.4.). In addition, 70% are satisfied that applications, communication media and computing services are easy to use (6.3.). Participants appreciated the use of comics in the app (graphical summaries) and in the case studies. One participant commented that *"the comics take away from the seriousness of the topic, but not the importance. It's like a reward once the topic is finished".*	Italy. 60% were very satisfied with the didactic guide and materials: these documents allow them to follow the content of the app and the e-learning course. 70% were very satisfied with supporting resources (virtual library, o-line videos...) provided. 50% were very satisfied with the easy to use of applications, communication media and computing services and with the self-evaluation test the allow the student and user to know the learning level achieved.	Romania. Most participants are "very satisfied" with the indicator on technical and teaching resources. The item with which all participants are "Very satisfied" is related to applications, media communication and computing services, which are easy to use. Below are two comments from participants: - *"The self-assessment test was a good way to quantify the knowledge gained from this course."* - *"The videos on youtube are in English and do not allow me to easily understand the message sent. I did not find materials in Romanian for bibliographic resources."*

6. App and e-learning platforms on the Internet: interface

Participants believe that it is easy to manage the app, since its structure is flexible and efficient to use. They consider the design friendly and attractive, inviting interaction with the content, in simple and familiar language compatible with the needs of the caregiver. One participant considers that "the structure of both the app and the e-learning is very attractive and easy to use, so that caregivers and students will be interested in continuing learning with the material."
Regarding the e-learning platform and the educational app, the participants are very satisfied. They consider that the course is very easy to access, as well as the educational application. There were no problems accessing the e-learning platform or the educational application, and the participants are very satisfied with the content and structure presented.

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6. App and e-learning platforms on the Internet: interface		
Spain. 80% were very satisfied with the resources of the app and the course, in the criteria: user control, flexibility and efficiency of use, help and documentation, aesthetic design, language with simple words, phrases familiar to the user. Participants found the connection between the app and the e-learning course very interesting: the app presents the topics in a simple and concrete way and the caregiver and the student can learn more about the individual topics in the e-learning course.	Italy. 30% were very satisfied with the course and 25% with the app, in the criteria: user control, flexibility and efficiency of use, help and documentation, aesthetic design, language with simple words, phrases familiar to the user.	Romania. Most of the participants are very satisfied with the indicator regarding the application and the platform of the e-learning course: the interface. The following is a comment from a participant: - *"The application is very useful in finding quick, targeted information."*

7. Overall evaluation of the app and the e-learning course

The app allows users to acquire new skills that they can apply to activities of daily living. The participants show great satisfaction with the e-learning course and congratulate the work team on a job well done.
Most participants believe that the e-learning course and the educational application have helped them to develop personally, to progress in their professional career, to acquire new skills that they will be able to apply in their daily life, and it will allow them to obtain an accreditation that will recognize their professional qualification.

7. Overall evaluation of the app and the e-learning course		
Spain. 70% of the participants considered that the e-learning course allowed them to acquire new skills that they can apply to my daily work, that I have acquired knowledge that will allow me to progress in my professional career, and that it has helped them in their personal development. 60% say that it can help them to obtain an accreditation that recognises my professional qualification. -One participant consider the following: *"It is very important that this information is known by all professionals working with geriatrics, it will help the understanding to a great extent and the good treatment of people with cognitive impairment. It is very common to see in clinical practice*	Italy. With regard to this section, it must be kept in mind that not all participants actually work in caring for people with dementia, either because some are informal caregivers or because some have a different role in the care sector. 20% of the participants considered that the resources allowed them to acquire new skills that they can apply to daily work. 30% considered that they have acquired knowledge that will allow them to progress in their professional career, and that it has helped them in their personal development. 30% say that it can help them to obtain an accreditation that recognizes their professional qualification. Regarding the latter question, participants responded by making particular	Romania. Regarding the indicator with number 8 - Overall evaluation of the app and the e-learning course, most of the participants are very satisfied with the proposed items. However, there are people who are dissatisfied with some items. Thus: 1 person scored with "Dissatisfied" the item: "The course has allowed me to obtain an accreditation that recognizes my professional qualification", 2 people are dissatisfied with the personal development that the course brought, 2 people are dissatisfied with the item of knowledge acquired that will allow them to make progress in their professional career, and two other people are dissatisfied with the information in the course that

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that workers do not understand, do not know how to act, and with their best intentions often do the opposite. These notions will help that understanding to improve our professional practice".	reference to how resources can help caregivers in their job search.	they can apply in their daily lives. The following is a participant's comment: - *"The course was interactive, with the possibility of clarifying some ambiguities, current information was discussed."*

8. Overall satisfaction: e-learning course and case studies

The participants emphasize that the case studies offer different alternatives and possible solutions to the cases. However, more precision in the solutions of the cases would be useful. Participants point out the importance of the tutor giving technical explanations of the different processes of caring for people with dementia, e.g., in case no. 3, it would be very important to know how to handle a rocking chair. The use of comics to explain the daily situation is highly appreciated by the participants. The comics facilitate interest and understanding of the situation and allow users and students to follow the case. The case studies helped participants to structure an intervention plan, to better understand how an intervention plan can be implemented and how reflection questions can help implement person-centered care.

8. Overall satisfaction: e-learning course and case studies		
Spain. The participants were very satisfied with the e-learning course and congratulated the work team on a job well done. In quantitative terms, 80% of the participants were very satisfied with the e-learning course. 70% were very satisfied with module 1. Understanding dementia. module 2 Specialized care, Module 3. How to approach a person with dementia; and module 4. Behavioural alteration. One participant said: "it has been one of the best e-learning courses that I've taken on this subject". **Case studies** Spain. 70% of the participants were very satisfied with all the cases. Various participants mentioned cases 3 and 4 as the most interesting according to the situation at the long-term care facilities. A participant said: "it is very positive to see all the alternatives and possible solutions to the cases", however, two participants agreed	**Case studies** Italy. 62,50% were very satisfied with Case nº1. *Sarah is living in her own apartment but has a hard time coping with everyday life*, Case nº 3. *Maria is restless and not at ease at the nursing home* and Case nº4. *Peter is living in a nursing home. He is not satisfied with much and the staff is frightened of him.* 50% of participants were very satisfied with the Case nº2. *John is living in a nursing home. He has Lewy body dementia and from time to time he is hallucinating*	Romania. Most participants are "very satisfied" with the e-learning course. All participants scored the items of indicator 9 with "Very satisfied" and "Satisfied". Below is a comment from a participant: - *"Cognitive-behavioural changes have been very well described and interesting approaches have been offered to people with dementia."* ***Case studies*** Romania. Most participants are very satisfied with the case studies. Participants rated the case study items as 'Very Satisfied' and 'Satisfied'. However, one participant considers that these case studies are similar to those found in Romania. Below are 3 comments from participants: - *"The case studies came with additional information as a working approach. The information is useful to be provided to people who are not in this field."* - *"Case studies are far from the Romanian reality; Unfortunately, we*

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on the idea that "greater precision in the solutions of the cases would be more useful". The role of tutor is important to explain the different procedures in each situation. Example of the importance to know how to manage with the rocking chair.		*face people with dementia who do not receive help from anyone, there are no home care services in the locality, people cannot afford a place in a nursing home, the family refuses to take care of the elderly or to contribute to their care in a home. Most people with dementia that I have come in contact with at work are seen as "persona non grata"; society, the family, is often not willing to accept it, to seek to increase the quality of life, respect for dignity."* - *"Well described cases, well suggested solutions to increase the quality of life of the beneficiary but also to facilitate the daily activities offered by the care staff."*

9. Overall satisfaction: educational app

Participants are very satisfied with the results of the AppForDem project. They consider that the connection between the app and the e-learning course is very interesting to learn about caring for people with dementia. The app presents the topics in a simple and concrete way and the caregiver and student can learn more about the individual topics in the e-learning course.

9. Overall satisfaction: educational app		
Spain. 80% are very satisfied with the family care theme. 70% are very satisfied with the topic ethics of care, understanding dementia, changes in behaviour. 60% are very satisfied with sensory perception. 50% are very satisfied with the themes Eating and drinking, toileting and personal hygiene.	Italy. 30% of participants were very satisfied with the app in general and with the topics The ethics of care, Changes of behaviour, Sensorial perception and Family support. 40% were satisfied with the topics Understanding dementia, Eating and drinking, Toileting and Personal hygiene.	Romania. Most participants are very satisfied with the items related to the educational application. Participants used either "Very Satisfied" or "Satisfied" in scoring these items. The items related to the topic Sensory Perception and the one related to "Changes of Behavior" are the ones that collected the most "Satisfied" scores.

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Final comments on questionnaires

Spain

- *"As a caregiver in a nursing home, what I appreciate most is that the app is easy to access and allows me to easily find the information I need. Congratulations for the great work".*
- *"The structure of the app and the e-learning course makes them easy to use, it makes it a pleasant experience to learn more consulting the rest of the material".*
- *"I found it to be a very interesting learning experience, very useful for our day to day in nursing homes. My congratulations on the good work".*
- *"I find both the app and the e-learning course to be very useful for formal caregivers and/or students, either to update their knowledge or improve their qualifications and for non-formal caregivers to help them improve their care for a person with dementia."*

Italy

- *"Beyond the difficulties that an elderly person not very technologically familiar with technology may encounter, I think it is very helpful. Thank you."*
- *"Important to maintain the ability to update/implement/integrate content. THANKS"*
- *"Write key phrases about caregiver emotions indicating the normality of experiencing feelings such as guilt, anger, and the inability to solve problems that dementias have. Thank you"*
- *"Overall a very good job"*
- *"The course, in my opinion, is well done. Simple and clear, with good usability and easy to use. The materials are well presented, with many useful resources for those doing care work and also for personal background. The guide is of fundamental importance and functionality. Overall, my rating is overwhelmingly positive."*

Romania

- *"The format of the course and the application are very useful both for professionals in the field and for people who interact or are involved in the older people with dementia care, being a good guide in managing such a case."*
- *"The content of the materials was very helpful for me, I will use the knowledge acquired in my work."*
- *"Thanks for the materials - they are very helpful for those who work in the field of care for the elderly."*
- *"I think the application is useful and well structured, only the text needs more intervention sometimes. It could be done a little more, cosmetic and adapted. In addition, I have frequently found grammatical and spelling mistakes, there may be a variant through which the text in the application can be reread and corrected. Thank you!"*
- *"An extraordinarily interesting and useful course. Thank you for the opportunity, for your professionalism and information."*
- *"Very useful even for experienced specialists, for refreshing knowledge."*
- *"The course is well structured, the information is well synthesized, it is clear, precise and useful, especially to people who are familiar with the general and specific features related to dementia. I think that the course would help a lot the relatives of the patient with dementia, in the home care process! Congratulations on this initiative to make this application available, I repeat this I think would be very useful, especially for homecare services, as well as for care staff in residential centers, which also have beneficiaries with this disease."*

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5. SUMMARY AND CONCLUSIONS

In the last stage of the AppForDem project, partners carried out a piloting process aimed at testing the educational app "dementia and daily living" and the e-learning course "specialized care for caregivers of people with dementia" with the project target groups in Romania, Italy and Spain.

In this regard, from October to December 2021, ANS, HABILITAS and MENSAJEROS organized two workshops in their countries aimed at evaluating the usability of the aforementioned learning resources. A total of 37 organizations and 84 participants (20 in Spain, 17 in Italy and 44 in Romania) were involved in the process.

The profiles of the participants were diverse: doctors, nurses' occupational therapists, physiotherapists, psychologists, dementia experts, teachers, social workers, project managers, nursing home directors. The partners organized two workshops addressed to test the app Dementia and daily living and the e-learning course. The participants exchanged their opinions in two online meetings and answered to a validation questionnaire proposed by the partners based in nine general items.

In general, the opinions of the participants show a high degree of satisfaction with the 9 items defined in the guidelines document for the piloting. According to the results of the process in the participant countries, we can conclude that the educational app "Dementia and daily living" together with the e-learning course "Specialized care for people with dementia" are very suitable for the vocational training of formal and informal caregivers of people with dementia. The following items summarizes the participants opinions:

ORGANIZATION OF THE PILOT EXPERIENCE: APP AND E-LEARNING COURSE
The majority of the participants are very satisfied with the pilot experience of the app and the e-learning course: information, meeting deadlines/schedules, delivery of training material, etc.

CONTENT AND METHODOLOGY
Participants consider that the topics of the app are very appropriate for the needs of those caring for people with dementia. They agree that the learning content is presented in a simple way, it is concrete, clear and easy to understand. The e-learning course is highly valued by participants. The learning content in the modules and units is very important for caregivers and students. The course uses simple language and the content is very easy to understand. They consider it a very useful course for formal and informal caregivers of people with dementia.

CASE STUDIES
The participants emphasize that the case studies offer different alternatives and possible solutions to the cases. However, more precision in the solutions of the cases would be useful. Participants point out the importance of the tutor giving technical explanations of the different processes of caring for people with dementia, e.g., in case no. 3, it would be very important to know how to handle a rocking chair. The use of comics to explain the daily situation is highly appreciated by the participants. The comics facilitate interest and understanding of the situation and allow users and students to follow the case.

DURATION OF THE APP AND THE ELEARNING COURSE
Regarding the application, the participants agree that a topic can be consulted quickly as the index of the app is well defined. They find the letters in bold very useful to find the necessary information. Participants consider that the course has a lot of useful information for caregivers of people with dementia (contents, videos, links, exercises, case studies). Regarding the 30-hour duration of the course, all participants are satisfied, so we can say that this was enough according to the aims and content described in the didactic guide.

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CONTENT AND DIDACTIC RESOURCES

The participants are "very satisfied" with the didactic media materials and consider that the app provides good solutions for facing situations of daily life in the care of people with dementia, from a person-centred care approach. They also agree on the high quality of the documents and material of the e-learning course. Concerning the app and the e-learning course, they think that the learning content is understandable and appropriate for everyday situations. They also consider that the materials are up-to-date and agree that the questionnaires, exercises, and case studies are well tailored to their training needs.

TECHNICAL AND DIDACTIC RESOURCES.

Most participants are "very satisfied" with the indicator on technical and teaching resources. Participants think that the app is easy to download from Android and IoS/Apple stores and very easy to use. They consider that the guides and materials allow caregivers and students to follow the lessons well. The e-learning platform is very intuitive and they offer enough support resources (links, videos, bibliography) for self-study. Self-assessment tests allow users to know the level of learning achieved.

THE APP AND E-LEARNING PLATFORMS

Participants believe that it is easy to manage the app, since its structure is flexible and efficient to use. They consider the design friendly and attractive, inviting interaction with the content, in simple and familiar language compatible with the needs of the caregiver. One participant considers that "the structure of both the app and the e-learning is very attractive and easy to use, so that caregivers and students will be interested in continuing learning with the material." They consider that the course is very easy to access, as well as the educational app.

OVERALL EVALUATION OF THE APP AND THE E-LEARNING COURSE

The app allows users to acquire new skills that they can apply to activities of daily living. The participants show great satisfaction with the e-learning course and congratulate the work team on a job well done.

OVERALL SATISFACTION

Participants are very satisfied with the results of the AppForDem project. They consider that the connection between the app and the e-learning course is very interesting to learn about caring for people with dementia. The app presents the topics in a simple and concrete way and the caregiver and student can learn more about the individual topics in the e-learning course.

SUGGESTIONS FOR IMPROVEMENT

In the piloting process, participants suggested some improvements for the application and for the e-learning course. Some suggestion for improving the app were the following:

- The Eating and Drinking topic need an explanation of the concept of "solid colours".
- In the questionnaires, some questions need to be improved: Topic 6, question 5 and in Topic 8, question 3.
- Personal hygiene topic: an expert consider it is not necessary to detail a list of products.
- In the topic Toileting:
    o Need wording changes in the subtopic diaper use: "target" and "accident". The suggest to remove the two first paragraphs, since they affected the autonomy of the person.
    o There is a contradiction about privacy in the bathroom: opening the door to locate the bathroom in point 5 and closing the door in point 6. It is suggested to remove the option: keep the door open (item 5)
    o A more detailed explanation is needed under incontinence. They suggest to remove the first paragraph: risk of fall and incontinence.
- Adding a sort of "stress thermometer" which, based on certain answers you give, urges you to reach out to professional help
- It should be said more about the emotional impact on carers – for example the fact that feeling guilty or inadequate is normal. The feelings of carers should be recognised and mirrored, so that carers feel understood.
- Something more should be said in relation to what to do when the care-recipient refuses using a pad, as it is a very common situation (for example it could be suggested to start slowly, by using it only when going out and then progressively increasing the use)
- A participant suggested to explain better whether the diagnosis should be communicated or not to the person with dementia, as the current content seems a bit ambiguous in this regard
- There was some discussion in relation to the section "living well with dementia" of the APP (Module: understanding dementia) since it seems to be very simplistic and a bit frustrating for the carers reading it. It should be either rephrased (not "living well" but maybe "practical suggestion" and /or expanded as the current advices seem quite limited to be able to "live well")

In relation to **technical aspects / usability**. While all participants managed to use the ICT tools quite easily, some suggestions to improve usability were made:

- When entering the e-learning from a mobile phone, there is a calendar showing which disturbs the vision and it is not intuitive how to remove it.
- Generally speaking, people said that it was not really friendly to use the e-learning from a mobile phone – maybe it should be recommended explicitly to use a tablet or a PC.
- It should be made more direct the link from the APP to the related module in the e-learning. I.e.: the APP should link to the relevant unit and not to the website in general.
- It seems that the e-learning includes some unnecessary steps which complicate navigation. For example, there is an intermediate step to enter the module (you have to press a "enter" button) that should be removed if possible.
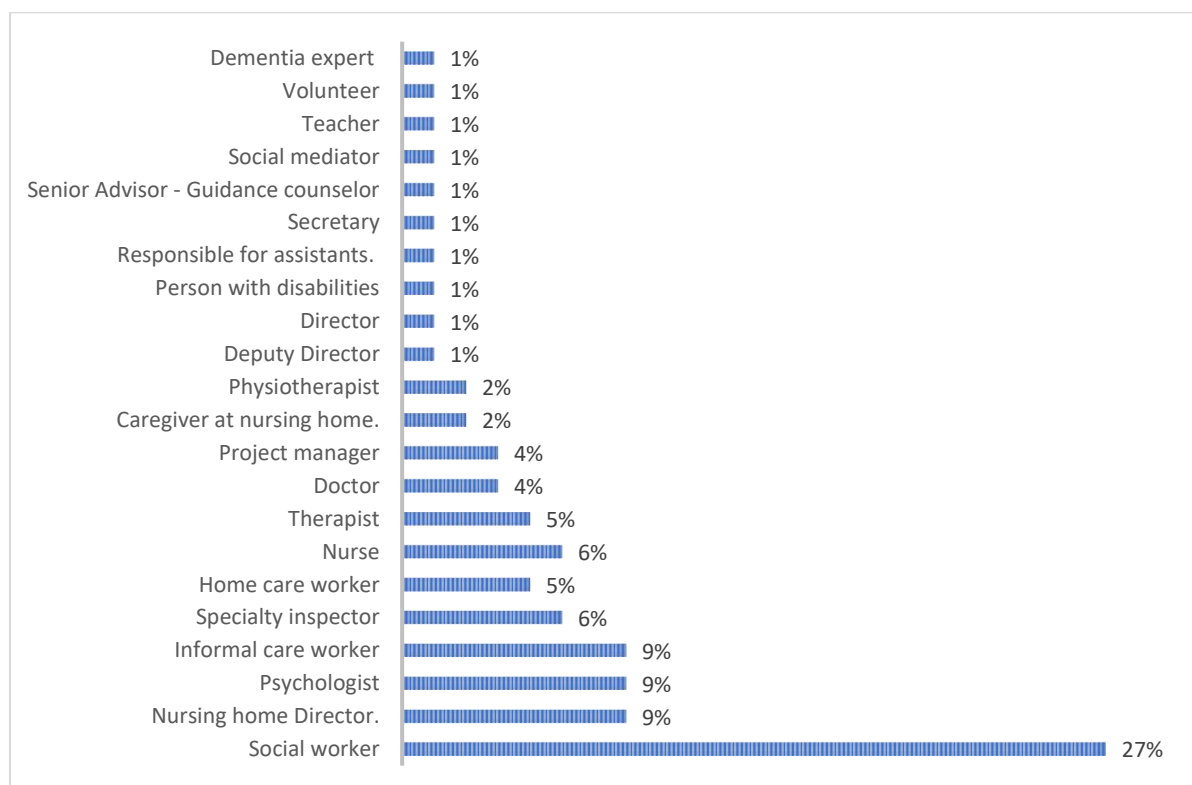
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6. PARTICIPANTS IN THE PILOTING ACTIVITIES

84 participants with different job profiles were involved in piloting in the participant countries.

PARTICIPANTS PROFILES IN PILOTING EXPERIENCES

The profiles of the participant were very diverse, we can see that 27% were social workers, 9% nursing homes directors, 9% Psychologist, 9% informal care worker, 6% Speciality inspector, 5% home worker, 6% nurse, 4% Doctor

Job profile	Percentage
Dementia expert	1%
Volunteer	1%
Teacher	1%
Social mediator	1%
Senior Advisor - Guidance counselor	1%
Secretary	1%
Responsible for assistants.	1%
Person with disabilities	1%
Director	1%
Deputy Director	1%
Physiotherapist	2%
Caregiver at nursing home.	2%
Project manager	4%
Doctor	4%
Therapist	5%
Nurse	6%
Home care worker	5%
Specialty inspector	6%
Informal care worker	9%
Psychologist	9%
Nursing home Director.	9%
Social worker	27%

PROFILES OF THE PARTICIPANTS IN THE PILOTING EXPERIENCES

JOB PROFILES	NUMBER	PERCENTAGE
Social workers	22	27%
Nursing home Directors	7	9%
Psychologists	7	9%

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Informal care workers	7	9%
Specialty inspectors	5	6%
Home care workers	4	5%
Nurses	5	6%
Therapists	4	5%
Doctors	3	4%
Project managers	3	4%
Caregiver at nursing homes	2	2%
Physiotherapists	2	2%
Deputy Directors	1	1%
Directors	1	1%
Person with disabilities	1	1%
Responsible for assistants.	1	1%
Secretaries	1	1%
Senior Advisor - Guidance counsellors	1	1%
Social mediators	1	1%
Teachers	1	1%
Volunteers	1	1%
Dementia experts	1	1%
TOTAL	81	100%

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7.WORKSHOPS: PHOTOS OF THE ONLINE MEETINGS

Spain

Presentation of the piloting process . Face to face meeting in Toledo on 14 October, 2021

PowerPoint presentations

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Online meeting. Testing the educational app **Dementia and daily living** 26/10/2021
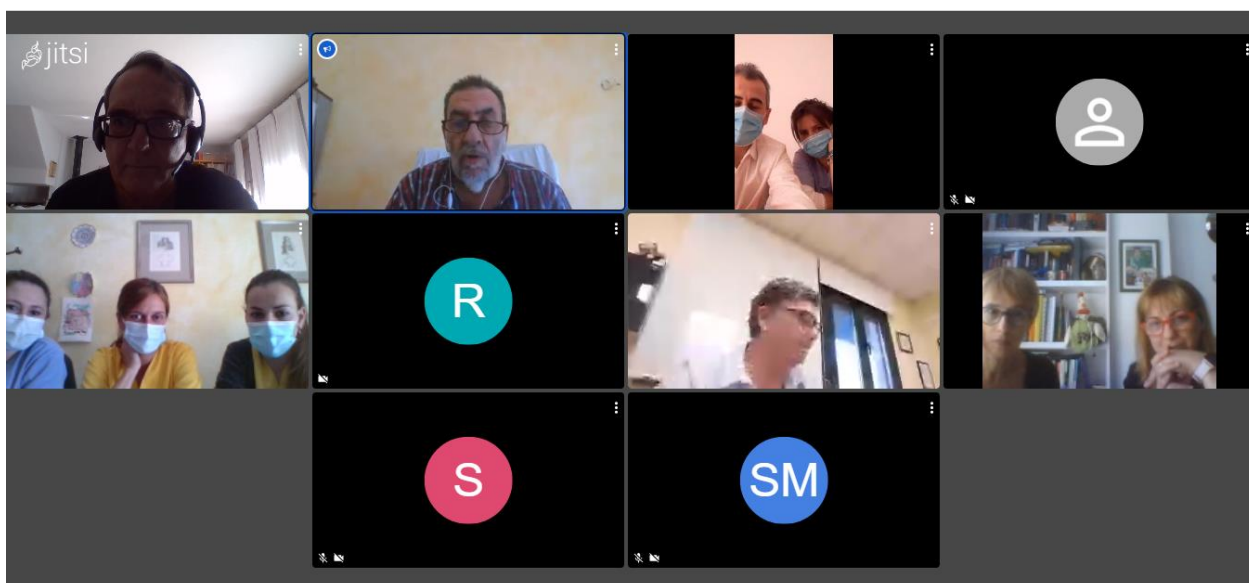
Online meeting. Testing the e-learning course 11/11/2021.

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Italy

PowerPoint presentations

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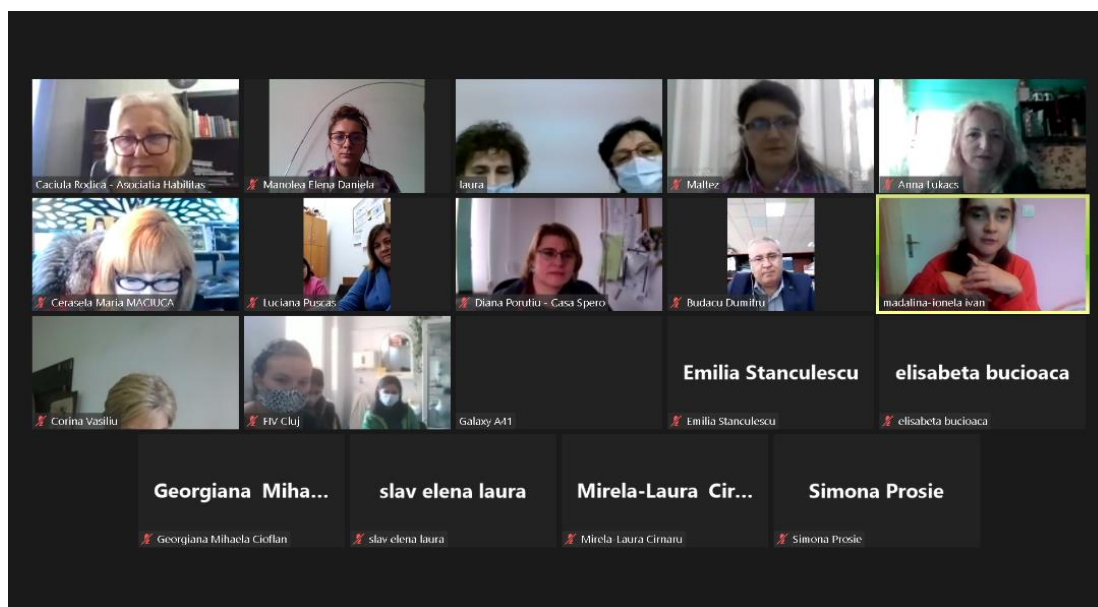## Romania

Online meeting. Testing the educational app. 23.11. 2021

Workshop 07/12/2021. E-learning course