DInSAd

DIGITAL INCLUSION FOR LOW SKILLED ADULTS

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Contents

Introduction

The Virtual Game aims to strengthen adults' capacity to efficiently use digital instruments as a precondition to improve their personal and professional lives, reducing significantly the inter-generational digital divide trend.

This game represents a second step in acquiring digital skills, after the board game. The game brings high added value as it helps adult users develop their digital competences by using an easy and fun way that actually utilizes the digital environment which elevates the level of acquaintance with the digital tools higher. Furthermore, as the adults need to learn in a participatory environment, the game will make it easier to participate and develop their digital competences.

It is addressed both to those low skilled adults that already played the board game and acquired the competences for foundation level, and to adults that already possess a basic level of digital skills.

Therefore, the methodological approach and contents of this game have a higher degree of complexity, but it is customized for the actual needs and learning characteristics of low skilled adults.

The game can be used by different education providers and other organizations that work with adults for a beneficial way to educate them in ICT.

This game is developed in cooperation with partners from Italy, Sweden, Greece, Romania and translated into all partner languages.

The Game Methodology

Similar to the board game in IO2, the virtual game consists of 6 fields, each field corresponds to the same topics for study developed for IO2, but at intermediate level. Each field includes six (6) tasks of which the participants must succeed to at least three (3) in order to unlock and proceed to the following field/level.

All game participants begin by reading the task that appears in the window and then they need to solve the "problem". The tasks usually need to be accomplished through consistent and logical execution. By clicking "Check" the player can see if the answer he/she gives, is correct or not. If it is correct he/she can proceed to the following task. If the answer is wrong the participant has two choices. He/she can either select a different task to "solve" or to press "Tutorial" and watch the tutorial lesson of how the activity is executed correctly and go back and try again the same task.

The game finishes upon completion of 18 Tasks (three tasks for each field/level).

Learning Objectives

In the book “Back to the Future of Education”1 four interesting scenarios on the future of education are defined on the future of education and in particular the fourth scenario seems to indicate our time.

Connecting global trends to education is a means of broadening our horizons and informing the base of decision making. But future thinking means considering the complex evolution of existing trends as well as potential developments and shocks.

This fact sheet summarizes some aspects that we have seen enlivened and real during the pandemic.

Like those expressed in "Goals and functions: Learning opportunities are widely available for “free”, marking the decline of established curriculum structures and dismantling the school system.” or in "Governance and geopolitics: Deinstitutionalization of public education, Global governance of data and digital technologies potentially key", this gives the possibility to appreciate the learning objectives of a project such as DINSAD.

The elements that are combined in the definition of learning objectives are of different nature, on the one hand those extrinsic to the project and on the other those intrinsic.

The extrinsic elements are:

- The progressive appropriation of production processes by information technology has led to a large share of unemployment among the over 50s. This has produced a group of adults to be re-trained, especially through updating as regards digital;
- The COVID19 pandemic has accelerated the need to be able to take advantage of information and training through digital means in all segments of the world population;
- In a certain sense these phenomena have established, as common and shared knowledge, that informal education is a diversified and broad reality, with large areas of positivity to be considered today as an ally of formal education.

The intrinsic elements are:

- Non-formal and structured learning that cannot be compared to the many resources found online;
- Learning levels specifically designed for low-skilled adults;
- Serious game methodology already extensively described in "Guidelines for the IO3 -Virtual Game".

[1] Back to the Future of Education Four OECD Scenarios for Schooling
15 Sep 2020 76 pages English Also available in: German
https://doi.org/10.1787/178ef527-en 9789264369320 (EPUB) 9789264443969 (HTML) 9789264967533 (PDF)
Authors: OECD

From this time-bound combination emerge learning goals that tend to make citizens proactive and active for life in today's society independently.

Therefore the learning objectives to be achieved through the proposed virtual game are:

- To learn the necessary skills and knowledge for basic and intermediate computer and Internet use. To understand about computer hardware and software, to be able to handle files and folders and know how to work with the icons and windows on a computer screen;
- To learn how to create a simple document, browse the Internet and use e-mail;
- Be aware of on-line services such as leisure, shopping, local entertainment;
- Browse and retrieve online news about cinema, books, readings, museums and music. Find information about travel schedules (air, train, bus), seat availability, availability of holidays, hotel occupancy etc.;
- Browse to retrieve corporate information and be aware of online banking services. Browse employee news, search for a job, find out about employment, pension rights or pension funding;
- Browse and retrieve information about social media, community groups, voluntary organizations, special interest groups, discussion groups, message boards etc. Try to install and use an app.

Ultimately and summarizing we will be able to identify learning objectives connected to three level categories such as:

- Basic functional digital skills, which allow users to access and conduct basic operations on digital technologies;
- Generic digital skills, which include using digital technologies in meaningful and beneficial ways, such as content creation and online collaboration;
- Intermediate-level skills, which mean using digital technology in empowering and transformative ways, for example Beyond skills, digital competences include awareness and attitudes concerning technology use.

Activities

The virtual game tasks have been created for supporting the players to get new skills related to computer knowledge and workflow on the Internet. The tasks have been developed and presented to the participants as steps that they have to achieve practicing simple interactive actions. Each type of activity has got some steps to arrange in different ways depending on the type of game. Steps are mentioned for every task, they have to be put in an order, or they have to be dragged and dropped according to the task. The types of quizzes developed by the partners are included in the Word Press Program with H5p games like Drag and drop, Image Sequencing, Sort the paragraph, Find Hotspot.

Tasks consist of associating screenshots that will show participants what to do, what to choose from a menu bar and what to click on in order to complete the task. The participant navigates

the computer and he/she is guided to achieve tasks like: install an application he/she needs in everyday life, create a ZIP archive, he/she learns about how to translate a text, how to order a meal at a restaurant, how to pay a ticket at cinema, how to shop, how to do online banking transactions, or how to meet and communicate with friends in an online meeting.

The game is played by a single person digitally, on a computer, on a phone or on a tablet, not by multiple players online.

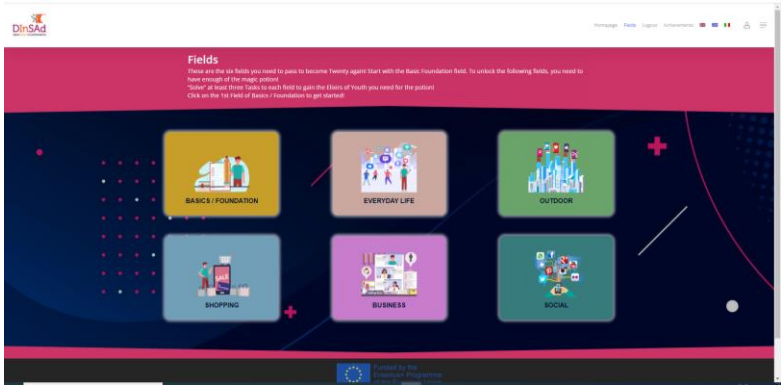
The game gives the possibility to register, play and start again from the level that the player reached previously. After completing the task/tasks the player knows how many points he achieved and he/she will be placed in a ranking system. The game can be continued whenever the player wants to. The player must not finish all tasks from a learning field; he can choose to switch to another or as soon as he/she completed at least three tasks within one single field. If the player did not solve the task, he can be supported by a tutorial which shows him how to proceed. Then he/she can come back to the task and try again.

The game has a plot. The idea of this plot is the following:

"A player begins the game as an old avatar at age e.g. 90 years [2] old. The challenge given to him is to become young. All he/she needs to do is to achieve some tasks. Tasks are linked to the six areas of interest and each time the person provides a correct answer/solve a task, he/she will get younger. For every correct task, the player receives some Elixirs of youth. In case of wrong choice, the person gets older. Every time he/she passes 3 tasks, he/she gains30 Elixirs of Youth to get the magic potion and becomes 10 years younger. Then he/she can change the field/ level."

The virtual game has got components of gamification like rankings, rewards or points system as instruments for motivating the player /learner in his/her learning process. With each learning field, the participant will gain new knowledge that will help him independently at work with a computer and the Internet.

Here the six learning fields (1-6) and their respective six tasks:



[2] Or starts at his/her actual age and he/she adds years when he doesn't complete a task correctly, or he/she loses years when he/she is successful.

Learning field 1. Basic/Foundation

1.1 Format an USB drive

1.2 Install an application

1.3 Change desktop image

1.4 Create a ZIP archive of a folder

1.5 Decompress a ZIP archive

1.6 Configure folder visualization mode

Learning field 2. Everyday life/e-participation/ Collaboration/ e-citizen

2.1. Translate a text

2.2. Translate a web page

2.3. Create a meeting

2.4. Create and schedule on Calendar a meeting

2.5. Create a google document

2.6. Create a google spreadsheet

Learning field 3. OUTDOOR

3.1. Netflix subscription

3.2. Digital Music App

3.3. Buying a movie ticket

3.4. Buying books online

3.5. Booking a table in a restaurant

3.6. Hotel reservation

Learning field 4. SHOPPING

4.1. How to compare prices and find the best price using a Shopping Search Engine.

4.2. How to verify that a certain e-shop is trustful (minimal requirements).

4.3. How to install a shopping app on a mobile phone or a tablet that runs on Google's Android.

4.4. How to add products to the cart, change quantities and send the order.

4.5. How to pay online for the order.

4.6. How to request an item return and how to get a refund.

Learning field 5. BUSINESS

5.1. Search for a job

5.2. Design your own resume

5.3. Online banking transactions

5.4. Taxi-app

5.5. Search for an apartment

5.6. Parking app

Learning field 6. SOCIAL

6.1 Creating photo or video albums on FB

6.2. Connecting with Friends on FB

6.3. Reactions on Facebook

6.4. Groups in Facebook

6.5 Find new Contacts on Skype

6.6. Screen sharing on Skype

User profile

The main user of the DinSad virtual game is expected to be composed of low killed adult learners over the age of 45. Specifically, adults with low levels of education, i.e., those whose highest qualification is at lower secondary level (ISCED 0-2), which means that they have not completed high school or equivalent, or adults with low levels of cognitive ability, i.e., say those scoring at proficiency level 1 or lower in the literacy and / or mathematics dimension of the OECD Adult Skills Survey (PIAAC).

However, the user profile identification for the Dinsad project adds further variables such as “digital skills” which change the landscape of low-skilled adults.

In fact, they are those who, by age group and occasion, have not had enough learning opportunities to increase digital skills and who, probably, for this reason have found themselves in a trap for low skills, possibly losing their job or undergoing a digitization of their own work that their digital skills do not support.

For this reason, the user profile of the low-skilled digital adult is related to an age +45 that deserves what was proposed, on January 26, 2022, by the European Commission, in an interinstitutional solemn declaration on digital rights and principles for the digital decade, for improve their digital skills, because:

Technology should unite, not divide, people. Everyone should have access to the internet, digital skills, digital public services and fair working conditions.

Digital technologies should protect people's rights, support democracy and ensure that all digital actors act responsibly and safely.

People should benefit from a fair online environment, be safe from illegal and harmful content, and be responsible when interacting with new and evolving technologies such as artificial intelligence.

Citizens should be able to participate in the democratic process at all levels and have control over their own data.

The digital environment should be safe and secure. All users, from infancy to old age, should be authorized and protected.

Along with the key target group described above, the DinSad virtual game could be accessed also by adult trainers/ facilitators and adult training organizations interested in innovating their curricula and teaching approach and instruments.

Public institutions offering services to adult individuals (e.g., e-health, local/territorial centres for adult people, etc.) could also be interested to exploit the virtual game for supporting their clients in improving their digital skills as a pre-condition for a more efficient use of their own online services offered to adults.

For accessing the platform, users need to create an account by registering on the platform providing the requested information. Once registered, they will be able to access the game any time introducing their username and password.

Assessment

The methodology used for the evaluation of DinSad Virtual Game environment, included assessment methods such as Actions Logging, Partners Observation (Internal testing) and Users Observation (External piloting). It should be mentioned at this point that, there are some limitations regarding the choice of the methods employed, since the users participated in the assessment are low skilled adults.

Actions Logging (or User Logging) is an evaluation method that includes recording of all user's activities, during their interaction with the interface under assessment, by the use of specialized equipment and software.

Partners Observation added the evaluators' comments to the data gathered by various sources. It aims at identifying eventual system errors or other game characteristics that need to be improved before providing it to the end users. Each Partner is requested to implement specific activities and evaluate their experience through a common assessment tool. In this case the experts' comments, suggestions and input will be provided through evaluation

questionnaire. (see Evaluation Form on Game platform https://docs.google.com/forms/d/e/1FAIpQLSe7w4Oz6FwYZuXNSBmFEM-IgorxQDlW7Dm38NfPKLhRPkr0JA/viewform)

Users Observation will engage 40 users and 4 trainers/mentors in testing the virtual game and providing feedback and suggestions for further improvement and exploitation. They will access the game, play, and after this experience they will be invited to answer a questionnaire for evaluating the game (as: methodology, contents, activities, usability, etc.). (see Evaluation Form on Game platform https://docs.google.com/forms/d/e/1FAIpQLSe7w4Oz6FwYZuXNSBmFEM-IgorxQDlW7Dm38NfPKLhRPkr0JA/viewform)

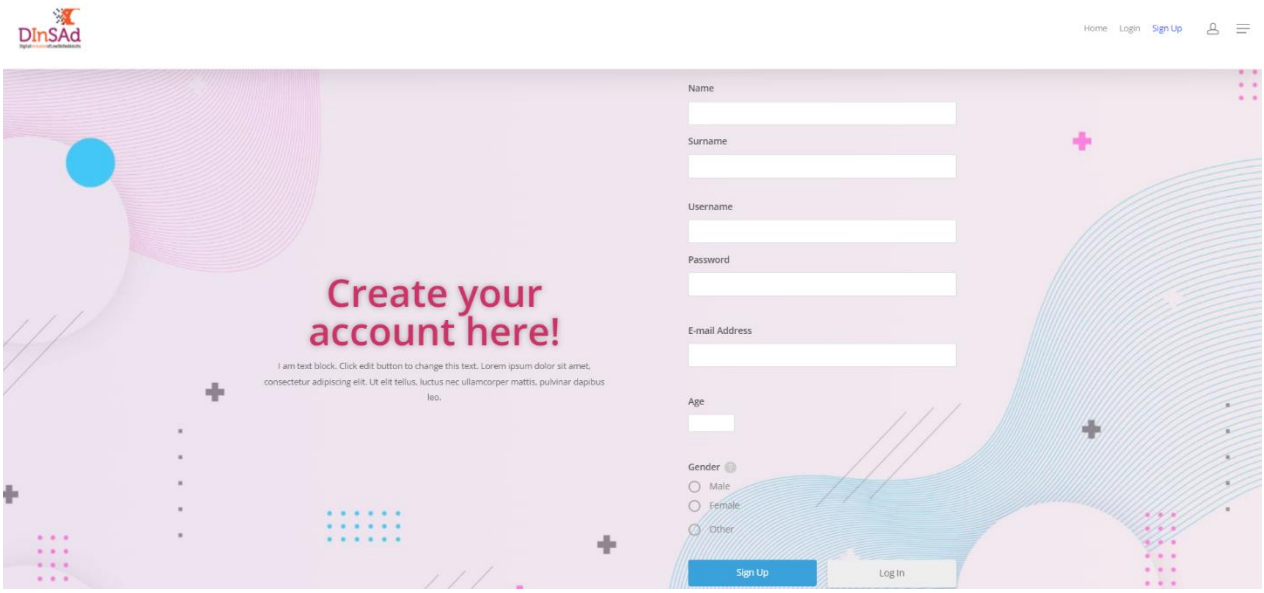
Recognition

Create an Account

Enter your details below to create your free Dinsad account. Please enter a valid email address, as we'll use that to contact you if there are any issues with your account.

Enter your account information in the window that opens:

- Your name and surname
- Your username
- Your email address (the one you used when you registered your account)
- Your password (the one you received in the email confirmation)
- Your age and gender



Click the blue button, and that's it! You have your own account now which you can use to enter the game!

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