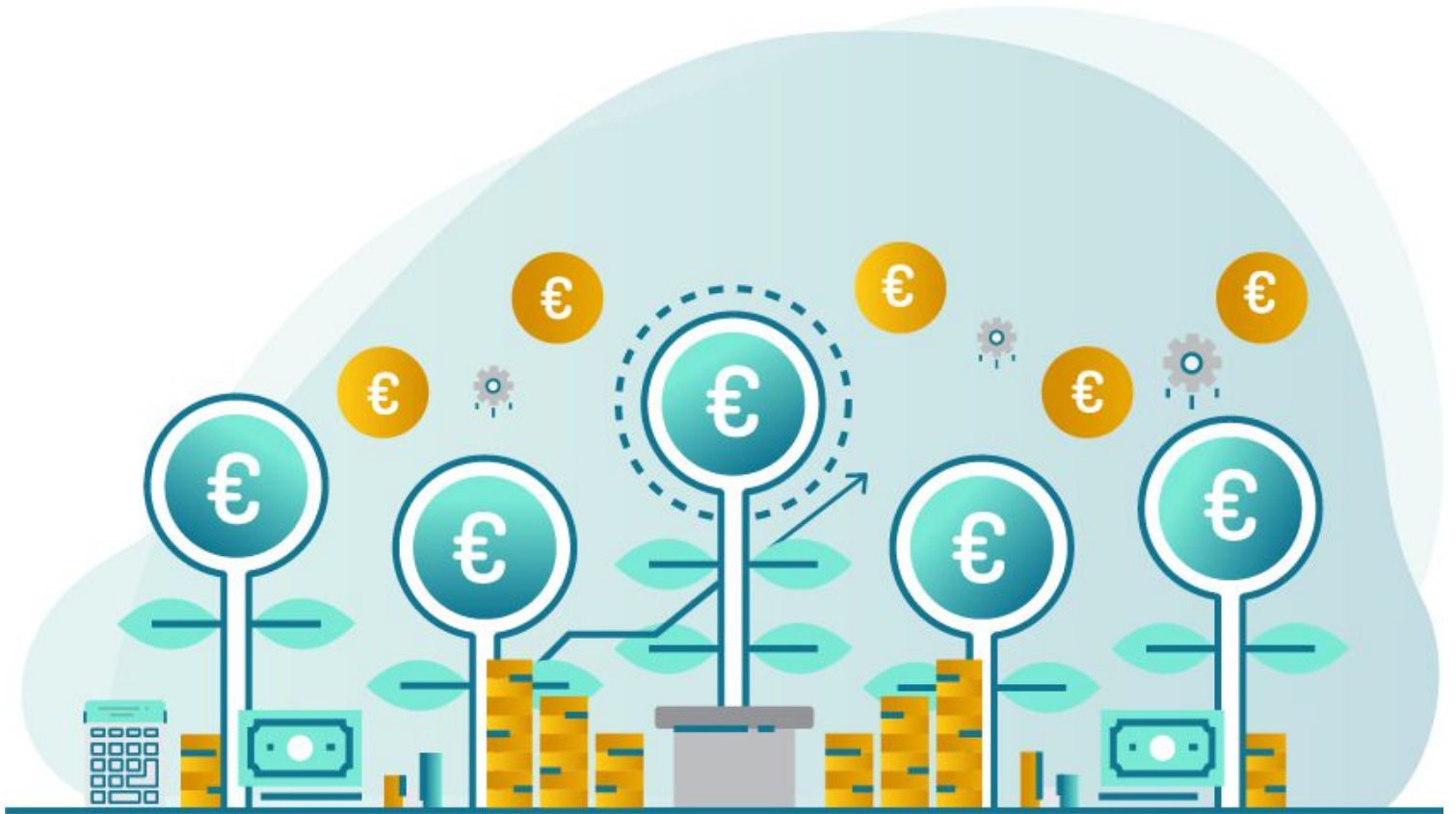




**Euro**  
Investment



## European Financial Literacy Game for Adult Citizens

### EUROINVESTMENT GAMES GUIDE FOR TRAINERS



## Partnership



INOVA+

INOVA+

[www.inova.business](http://www.inova.business)



CESAE  
CENTRO DE ESTUDIOS E INVESTIGACIONES DE ECONOMIA

CESAE

[www.cesae.pt](http://www.cesae.pt)



IEF Institut d'Estudis  
Financiers

IEF

[www.iefweb.org](http://www.iefweb.org)



ACCIÓN  
LABORAL

Acción Laboral

[www.accionlaboral.com](http://www.accionlaboral.com)



CARDET  
CENTRO DE ESTUDIOS E INVESTIGACIONES DE ECONOMIA

CARDET

[www.cardet.org](http://www.cardet.org)



innovADE  
INSTITUT D'ESTUDIS FINANCERS

INNOVADE

[www.innovade.eu](http://www.innovade.eu)

## Table of Contents

1.	Framework in Financial Literacy .....	4
1.1.	Introduction .....	4
1.2.	Most important points about Financial Literacy .....	5
	A. The Basics of Budgeting .....	5
	B. Understanding Interest Rates .....	5
	C. Prioritizing Saving .....	5
2.	Presenting the EUROINVESTMENT Game .....	6
2.1.	Present the 3 blocks and its structure .....	6
2.2.	How to play .....	8
2.3.	Games Descriptions .....	9
	A. Planning & Managing minigames .....	9
	<b>FINANCIAL CHECK-UP</b> .....	9
	<b>MAKE ENDS MEET</b> .....	14
	<b>RAINY DAYS</b> .....	20
	<b>NEST EGGS</b> .....	26
	<b>RETIREMENT CLOCK</b> .....	32
	B. Money & Transactions minigames .....	39
	<b>CHOOSE AND JOIN</b> .....	39
	<b>LET'S EXCHANGE</b> .....	44
	<b>SCORE A GOAL</b> .....	51
	<b>PLAY WITH INTEREST</b> .....	56
	<b>FIND THE WAY OUT</b> .....	61
	C. Risk & Credit minigames .....	65
	<b>LET'S DO SOME PROFILING</b> .....	65
	<b>THE ESSENCE OF INTEREST RATES</b> .....	70
	<b>INTEREST RATES AND THE MAGIC OF COMPOUNDING</b> .....	76
	<b>TYPES OF PERSONAL ACCOUNTS</b> .....	81
	<b>DO I USE THE DEBIT CARD, OR IS THE CREDIT CARD... WHAT IS THE DIFFERENCE EVEN?</b> .....	86
3.	Using the EUROINVESTMENT Game in Training .....	91
3.1.	Formal Training .....	91
	A. Portugal .....	91
	B. Spain .....	94
	C. Cyprus .....	97
	D. Most suitable Target Groups .....	101



**Euro**  
Investment

---

3.2. Informal/Non-formal Training .....	102
A. Portugal .....	102
B. Spain .....	103
C. Cyprus .....	106



# 1. Framework in Financial Literacy

## 1.1. Introduction

Financial literacy is key for all people in their daily lives. Financial literacy is a core life skill that must be nurtured to encourage responsible financial behaviour and to give people the confidence to take control of their finances. Financial education has a vital role in ensuring that European citizens are equipped with the knowledge, confidence and skills necessary to improve their understanding of financial products and concepts.

The lack of financial knowledge and skills between citizens endangers their financial well-being and over the last years has become a public issue. Consequently, governments, organizations and researchers are active in finding out the best practices for financial literacy education worldwide. In this sense, significant work is already underway in some European countries to implement national strategies for financial education.

We have to take into account that a lack of financial literacy is not a problem only in emerging or developing economies. It is also known that consumers in developed or advanced countries also have problems demonstrating a strong lack of financial principles in order to deal with financial issues, manage financial risks effectively and avoid financial pitfalls. Nations globally, are faced with populations who do not understand financial basics and do not know how to deal with this topic.

Any improvement in financial literacy will be a great change on consumers and their ability to improve their future. Current trends are making it all the more important that consumers understand basic finance principles because they are being asked to make more financial decisions in important moments of their lives.

Learning how to read financially is not easy, but once mastered, it can ease life tremendously.

With these games, theEUROINVESTMENT project wants to make financial education easier and more accessible. Game-based learning, as part of an edutainment approach, that links the education with the entertainment, is being recognized as an effective form of education and is highly valued as a compelling companion to classroom instruction, because it boosts students' interest and improves knowledge retention. In this regard, digital games can become a pedagogical tool that can be designed in such a way so to enhance learning outcomes that are relevant in adults' financial literacy education in the teaching process.



## 1.2. Most important points about Financial Literacy

There are several main points to have in mind when we deal with financial literacy. Educators and trainers must include in their training and lessons regarding to financial education:

### A. The Basics of Budgeting

Creating and maintaining a budget is one of the most basic aspects of staying on top of your finances. Without following a budget, it's difficult to hold yourself accountable on where your money is coming from and what it's going toward, so mastering the basics of budgeting is where any financial novice should begin.

### B. Understanding Interest Rates

Understanding this rate, not only can it help you save even more, but it can make the difference between borrowing a small amount and paying back much more than you need to for years to come.

### C. Prioritizing Saving

Obviously, saving is an important aspect of maintaining a healthy financial situation. It's easy to ignore things like retirement since it seems so far off in the future. Learning to save early on can help you gain the knowledge, practice and set of skills you'll utilize throughout your entire life. Beginners can start working on this concept in the simplest sense, like saving money for a higher-ticket item they desire.

Related directly to these points, the trainers should ask some basic questions to the learners to have in mind their level of financial literacy:

- Do you know how to create a monthly budget that includes all of your basic expenses, your bills, any debts, and your sinking funds for future purchases?
- Are you currently debt-free? Or are you taking active steps to reduce your debts?
- Do you know about how much money you spend to cover living expenses over a period of three to six months?
- Do you have an emergency fund in place that would allow you to get through a sudden large life event without having to borrow money?

Successful adult learning provision takes into account how adults learn. This means that it must be hands-on, problem-oriented and closely linked to the context of the learner, especially if it happens in his or her workplace.

## 2. Presenting the EUROINVESTMENT Game

### 2.1. Present the 3 blocks and its structure

The EUROINVESTMENT Game consists of 15 minigames about financial management which are divided into three different areas according to different levels of complexity, aligned with the topics presented, from beginner to intermediate and expert.

The games about Planning & Managing address the beginner level and so have lower complexity. It is recommended that learners start from there. Even if they are familiar with some of the topics presented at that level, they will be able to remember concepts and put them into practice. On the contrary, the games about Risk & Credit demand from the users and learners some command of financial concepts. Further, users can take each mini-game as much as they want. Taking each game more than once can help them to consolidate their knowledge and understanding of the most relevant concepts and how to use them into their daily life.

Main areas:

- Planning & Managing

This game series will help users to learn the basics of financial planning to ensure and achieve their personal goals as a result of smart money management.

The mini-game 1 "Financial Checkup" gives users the information to understand how to assess their personal finances to start controlling their financial well-being. In the end, they will get a financial health grade and some ideas for improving their financial well-being. Following this, the mini-game 2 "Make Ends Meet" gives learners a simple budget to plan and control their personal spending and begin to priorities' within the constraints of limited resources. The mini-game 3 "Rainy Day Fund" calculates how much users need to save for a rainy day, according to different variables and priorities, tells them the steps they must follow to build their own Rainy Day Fund. Next in line, the mini-game 4 "Nest Eggs" classify some expenses related to different personal goals (Study Abroad, House Renovation and Having a Baby) to find out how much they will need to save regularly to reach their goals in time and build a savings plan for each goal. Finally, the mini-game 5 "Retirement Clock" calculates how much users need to save, overestimate how much they can safely withdraw each year from their nest eggs during retirement and see which financial areas they may need to brush up on before retirement.

- Money & Transactions

This game series will help users identify and understand business transactions using a discount, interest, taxes, and currency conversions.



The mini-game 1, "Choose and join", explores the concept of the exchange rate. By playing this game learners will be able to count notes and coins to make an amount and convert that amount into a different currency. To deepen their knowledge about the exchange rate concept, the mini-game 2, "Let's exchange", explores the concept again, so they can learn how to apply currency exchange rates for an available budget. The mini-game 3, "Score a goal", introduces them to the concept of Trade discount. The completion of this game allows users to identify the notion of discount and understand how to proceed to complete a transaction. Following this, the mini-game 4, "Play with interests", provides them with a deeper understanding of the concept of the interest rate. By playing this game learners will be able to identify the notion of the interest rate when they buy a product or a service and will know how to proceed with a transaction. The last game of this series, the mini-game 5, "Find the way out", promotes the understanding of the Value Added Tax (VAT) concept. Upon completion of the mini-game, they will be able to identify the notion of Value Added Tax in a business transaction.

- Risk & Credit

This game series will help learners understand the concept of credit enabling them to make more responsible choices when they consider saving or borrow money.

The mini-game 1 "Let's do some profiling" introduces them to the concept of credit. By playing the game they will understand how the bank assesses a credible customer. Following this, the mini-game 2 "The essence of interest rates" presents the concept of interest rate and allows them to calculate the amount of interest they will end up paying for their financial decisions. The mini-game 3 "Interest rate and the magic of compounding" helps users to distinguish between simple and compound interest rates and their different impacts on their finances. Next in line, the mini-game 4 "Types of personal accounts" promotes the understanding of their individual financial needs and the types of loans that best suit different scenarios. Finally, the mini-game 5 "Do I use the debit card, or the credit card ... and what is the difference?" handles on the differences between debit and credit cards, to help learners select the correct method of payment to the best effect of its qualities.

Throughout the EUROINVESTMENT Game, users can browse the list of minigames per category. At the beginning of each game, they will find a walkthrough tutorial. As a trainer, you may make sure that users are connected to the Internet and that their computer audio works properly.

All minigames include a training or informative section called "Train your Brain" where users can find all the information related to the concepts, topics and advices which are important for the understanding of the game and its objective.

Also, at the end of each minigame, they will find:

- The main competences they will work on.
- Recommended links and additional info in case they want to learn more.





## 2.2. How to play

The games are built using multimedia elements. In particular, they include images, text, audio and videos. To have an efficient game experience you are advised to take into consideration the following tips:

- Make sure that you all computers are connected to the Internet and that the computer audio works properly.
- It is better to use a cable connection rather than a WI-FI connection, although they both work well.
- The games do not load the same to all browsers. The software loads better to browsers that fully support HTML5 (Mozilla Firefox, Google Chrome, etc.).
- If a game does not display the subtitles, you need to RELOAD the game.
- Some games include a calculator that allows players to calculate amounts. The calculator does not display the equation symbols (+, -, etc.) but it works properly. Also, it is advised to ask the players to keep notes about the amounts calculated.
- If the games are paused for a long time you may experience issues with the subtitles (not showing). In such cases, you need to RESTART the games.



## 2.3. Games Descriptions

### A. Planning & Managing minigames

#### FINANCIAL CHECK-UP

\*The mini-game “Financial Check-up” promotes the understanding of how to assess your personal finances, your savings and your expenses, to start controlling your financial well-being.

#### Description of the objective of the game



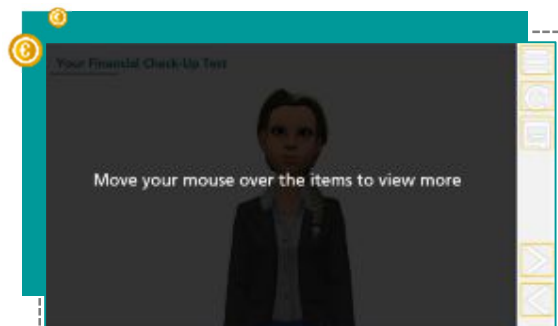
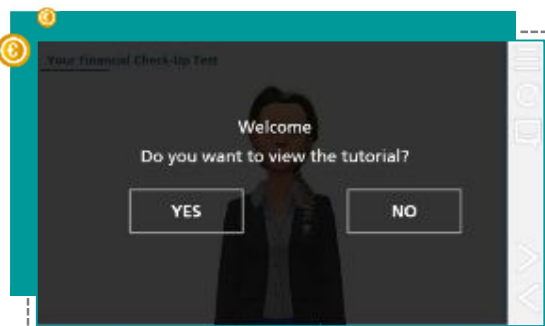
Financial Check-up is the first minigame in this series and its objective is that players get the information they need to know how their real financial situation is and how to deal with it.

Through the completion of a test about financial health at home, players will get a diagnosis depending on their answers.

When they get all this information, they will know what their problems are, and they will learn how to solve and react to them through some advices to manage better their financial situation.

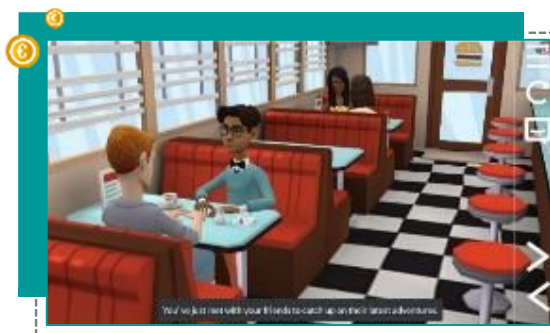
#### Explanation of the game process

When starting the game, a **tutorial** is available for the users, aiming to explain how the user can navigate in the game and the toolbar options.



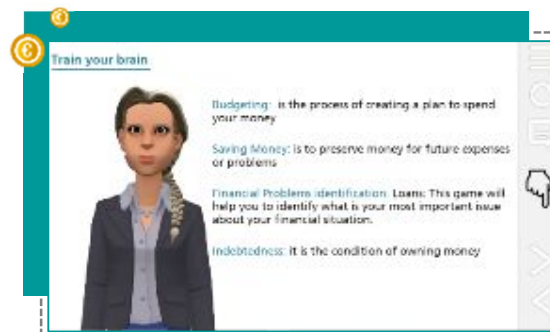


At the beginning of the game, the **game objective** is displayed: “Upon completion of the mini-game you will be able to understand how to assess your personal finances, your savings and your expenses, to start controlling your financial well-being”. It is important that the trainer and/or tutor is aware of the game objective and he/she can link it with other training contents, subjects, or materials.



After the presentation of the game objective, the real-based environment is presented to the users, enabling them of understanding the **scenario of the game and the real situation where the concept of Financial Well-being will have to be used**. As a trainer and/or tutor, you might need to provide some hints to the users before the game.

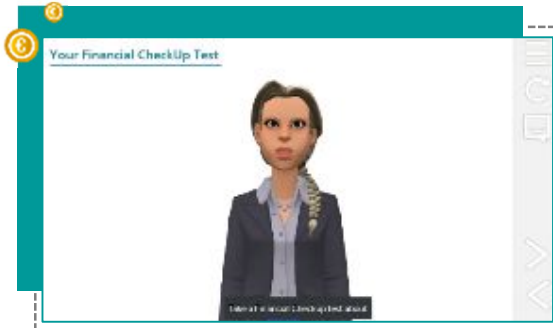
Before digging in the real game, the users will have access to the section “**train your brain**”. This section aims to present to the users the concept(s) that the games aim to explore.



In this case, the concept of Financial Well-being and all its management procedures and tools are presented. It is important to highlight to the users that they shall pay attention to the information displayed in this section of the game and that to avoid doubts, it is recommended that they assist the section “train your brain” twice.

As a trainer and/or tutor you might opt to explore the concepts with your trainees in a training session and so when using the game, users will refresh their memory and understanding of the concepts. On the opposite, you can use the game as a teaser to introduce the concept of Financial Well-being and its management and then explore it with all groups in a training session.

Please note that, besides having the chance of learning and understanding the concepts, the users can also see different examples of how to manage a home budget and different possible financial situations.



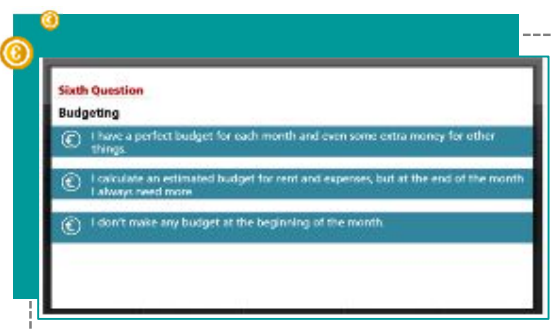
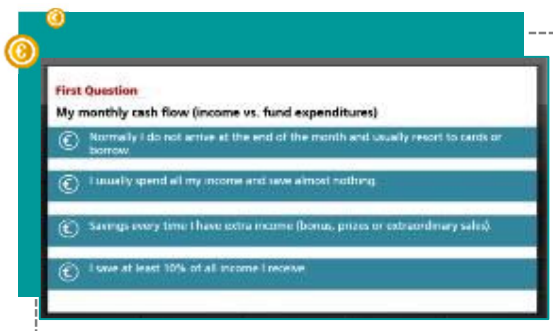
Following this introductory section of the game, the users will have access to **playing the game** and to use the explained concepts in a real-life scenario. While the game proceeds some instructions or guiding tips will be displayed to help the users.

As a trainer and/or tutor, you must explore the game as a user, before letting the trainees do it. This will help you to identify any tip or suggestion that you might feel the need to provide them.

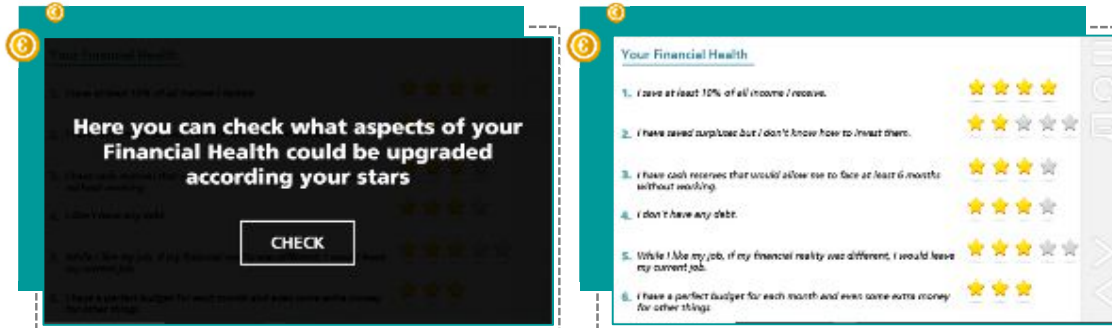


In this specific game, the users will have to answer six multiple-choice questions (one per bill) in which they find different types of answers. Users must choose the answer which best fits them regarding their situation. It is important that the selection of the bills is in order, you cannot choose the one you prefer, only the first available (on the left).

The questions cover topics such as “My monthly cash flow (income vs. fund expenditures)”, “My investments”, “My savings”, “My indebtedness”, “Budgeting” or “My job”.



In this minigame, there won't be correct or wrong answers since is just a check on how their financial situation is, so any answer is valid. Furthermore, thanks to that, the user's diagnosis can be truly adapted and the advices offered at the end can have a better impact.



However, some feedback questions can be formulated so trainers and /or tutors can explore with them what went wrong:

- Did you read carefully the “train your brain” session? Please explain to me the concept of “Budgeting”.
- Did you understand the meanings of the “Indebtedness”?
- Which aspects did you consider to identify financial problems?

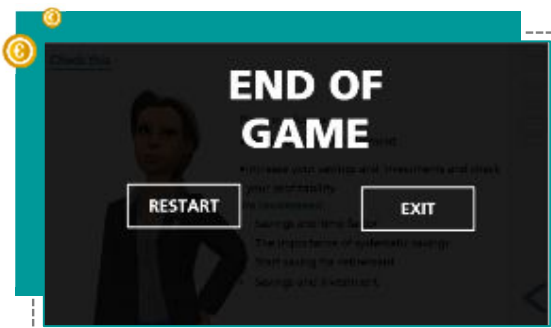
Some important tips that you can opt to provide to the users can be:

- Remind them that they should read the final advices page, not only regarding their own situation but also, to be informed about the best way to be prepared for a stable financial situation.



When the users completed all the mini-game “End of game” message will be displayed, with two options for the users:

- To restart the game from the beginning
- To exit the game



### Competences developed in each game

With this game, you will be able of developing in your trainees the following competences:

- To understand how to assess his/her personal finances.
- To start controlling his/her financial well-being.
- To identify what problems may they have.
- To know how to act to in these problems.



## MAKE ENDS MEET

\*The mini game “Make ends meet”, prepares to understand the importance of keeping track of personal finances to ensure our well-being. By playing this game you will be able to use a simple budget to plan and control your personal spending and begin to prioritize within the constraints of limited resources \*

### Description of the objective of the game



The objective of this game is to understand the importance of keeping track of personal finances to ensure the trainees’ well-being. Playing this game with the trainees for them to learn how to prepare their personal budget by identifying mandatory fixed expenses, necessary variable expenses and discretionary expenses.

A guide that indicates what they spend their money on and in which categories most of their income goes, which could help them to put a limit on their expenses and consequently approach their financial goals.

Preparing a budget consists of knowing how to adapt their most flexible expenses to the disposable income. Likewise, the budget can have two results:

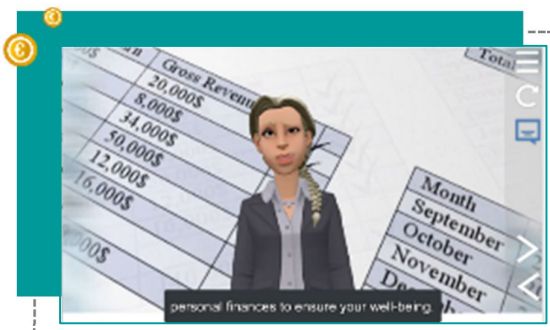
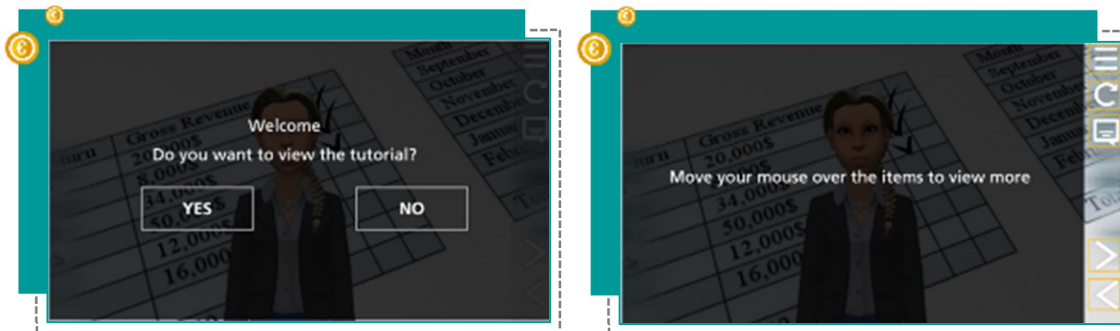
- **Surplus:** We have money left over and we can save.
- **Deficit:** We lack money and we can have problems.

Making a personal budget will help them to know their economic reality in order to make better financial decisions. To make the budget we will need to know what are the incomes (those we receive, such as salaries, payments, gifts, tips, etc.) and expenses (those we deliver for goods and services) that the trainees have. We will take into account the **necessary fixed expenses**(required to survive and we cannot easily change (rent); **necessary variable expenses** (required for day-to-day, but we can modify (food, clothing, water bill, etc.) and finally **discretionary expenses** (everything else (video games, cinema, restaurants, travel, etc.).

**Learning how to make a budget** is vital for their personal economy, which is essential for them to differentiate themselves from the rest of the people in managing their money and to prosper financially. No matter the level of income they have, a personal budget is an essential tool to get more out of the money we receive, and that shows them where the money has been spent.

### Explanation of the game process

When starting the game, a **tutorial** is available for the users, aiming to explain how the user can navigate in the game and the toolbar options.



At the beginning of the game, the **game objective** is displayed: “By the end of this game you will understand the importance of keeping track of personal finances to ensure our well-being. Preparing a budget consists of knowing how to adapt the most flexible expenses to the disposable income.

Likewise, the budget can have two results:

- **Surplus:** we have money left over and we can save.
- **Deficit:** We lack money and we can have problems.

It is important that the trainer and/or tutor is aware of the game objective and he/she can link it with other training contents, subjects or materials.

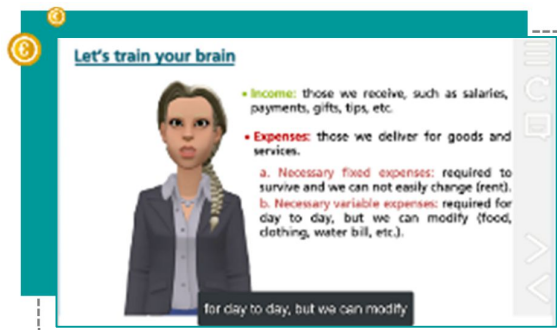
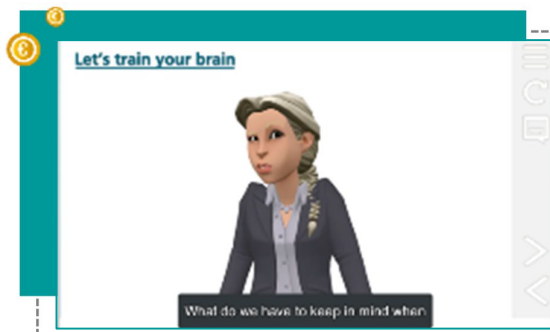




After the presentation of the game objective, the real-based environment is presented to the users, enabling them of understanding the **scenario of the game and the real situation where the concept of a personal budget will have to be used**. As a trainer and/or tutor, you might need to provide some hints to the users before the game.

Before digging in the real game, the users will have access to the section **“train your brain”**.

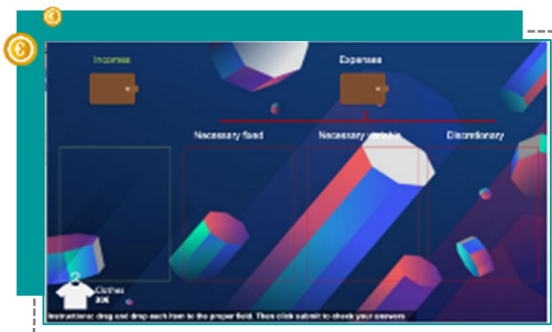
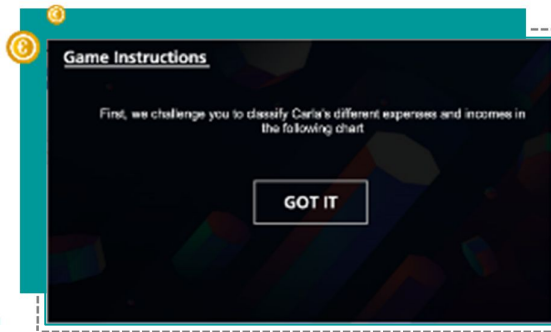
This section aims to present to the users the concept(s) that the games aim to explore. In this case, the concept of making a personal budget is presented. It is important to highlight to the users that they shall pay attention to the information displayed in this section of the game and that to avoid doubts, it is recommended that they play the section “train your brain” twice.



As a trainer and/or tutor you might opt to explore the concepts with your trainees in a training session and so when using the game, users will refresh their memory and understanding of the concept. On the opposite, you can use the game as a teaser to introduce the concept of the personal budget and then explore it with all groups in a training session.

Please note that, besides having the chance of learning and understanding the concept, the users can also see an example of a real personal budget with expenses and incomes being applied (in this case the personal budget from Carla’s new partial-time job).

Following this introductory section of the game, the users will have access to **playing the game** and to use the explained concepts in a real-life scenario. While the game proceeds, some instructions or guiding tips will be displayed to help the users. As a trainer and/or tutor, you must explore the game as a user, before letting the trainees do it. This will help you to identify any tip or suggestion that you might feel the need to provide them.



In this specific game, the users will have to classify Carla's different expenses and incomes. They will have the chance to select: clothes, rental, cleaning to the different necessary expenses (fixed, variable or discretionary). We will observe that Carla's personal budget results in a deficit of 46 euros.

The challenge is to obtain a surplus result and she can fulfil and become independent from her parents' house. For this reason, in order to help Carla's budget, the users should answer several questions to obtain a result according to her expenses. **Each question** will present two options Good idea or Bad idea that will answer and help Carla's budget decision. The users should have to think about the situation of Carla and her incomes and expenses.

Some important tips that you can opt to provide to the users can be:

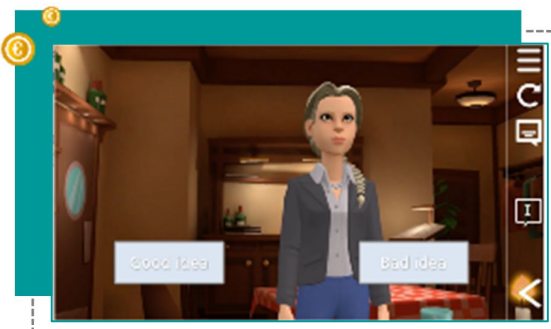
- It is important to clearly identify what our income and expenses are.
- Remind that they have to keep in mind that the salary or the **necessary fixed expenses or regular payments** cannot be touched.
- Take into regards the **necessary variable expenses or needs** that they should be taken into account.
- Take into regards the **discretionary expenses or wants**.

If the users provide an answer that is not correct, a friendly warning message will be displayed, with the option TO CONTINUE to repeat the question again.

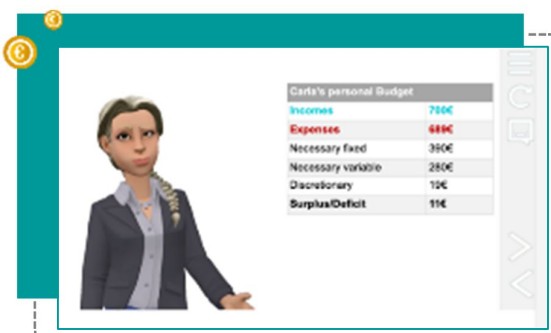


What could have been the problem? It is difficult to perceive in advance why a given user has provided a wrong answer... however, some feedback questions can be formulated so trainers and /or tutors can explore with them what went wrong:

- Did you read carefully the “train your brain” session? Please explain to me the concept of “incomes and expenses”.
- Which aspects did you consider to make the decision?
- Did you understand the concept of surplus?
- Did you understand the meanings of the necessary expenses (fixed, variable or discretionary)?



**On the opposite, if you provide a correct answer,** a “congratulations” message will be displayed and you would continue to the following questions.



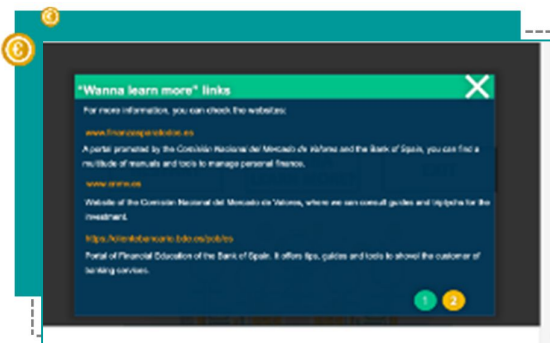
**After all questions,** the trainers/or tutors should use the results to compare and explain each part of Carla’s budget in order to clarify all the concepts. Also, in this part, trainers/or tutor could make any question depending on the needs that they have observed.

In this way, the trainers/or tutors should explain that they have to assess whether the budget results in a surplus or deficit. In the event that we obtain a deficit as a result we must readjust the expenses to be able to reach a 0 deficit or a surplus. In the same way, we have to keep in mind that it is important to reserve a percentage each month to be able to save since the savings allow us to assume planned expenses, manage to improve unforeseen events and be able to invest.



When the users completed all the mini-game “End of game” message will be displayed, with three options for the users:

- To restart the game from the beginning
- To go to the section “wanna learn more?”
- To exit the game



When completing the game with the correct answer, users will have **access to additional resources** that he/she can consult to learn more about the concept of a personal budget, with information and links of tips and guides.

### Competences developed in each game

With this game, you will be able to develop in your trainees the following competences:

- To know and understand what a personal budget is
- To understand the importance of keeping track of personal finances to ensure our well-being.
- To adapt the most flexible expenses to the disposable income.
- To reserve a percentage each month to be able to save.

## RAINY DAYS

\*The mini game “Rainy days “, put some ideas into practice to save money for a rainy day without having to rework your entire budget. By playing this game you will calculate how much you need to save for a rainy day according to different variables \*

### Description of the objective of the game



The objective of this game is to get some ideas into practice to save money for a rainy day without having to rework the trainees’ entire budget. Playing this game with the trainees they will calculate how much they need to save for a rainy day according to different variables and prioritise the steps that they must follow to build their own Rainy Day Fund.

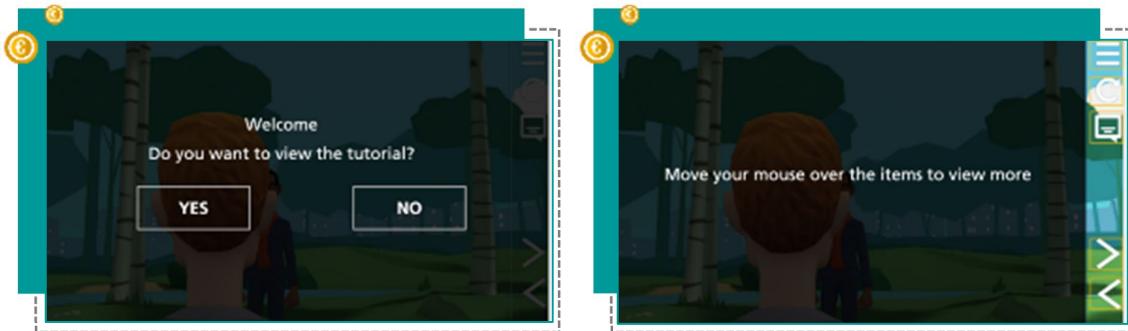
Saving for a rainy day is about expecting the unexpected. Rainy days (e.g. job loss, medical expenses, home repairs) can occur at any time. With an emergency fund (also known as a rainy day fund), you put yourself in a better position to deal with those circumstances.

- Emergency fund or Rainy Day Fund:** It is a savings account used for a *rainy day*. This savings account should be accessible (i.e. liquid) when emergency strikes. The actual amount in an emergency fund will differ depending on your financial situation. Many financial experts suggest that your emergency account should have enough money to cover three to six months of your living expenses.

The reality is that disaster can strike at any time and happen to anyone. A *Rainy Day Fund* can help us and our loved ones better cope financially in these instances. It takes time to build an emergency fund that can maintain your monthly expenses for a period of time.
- Savings Account:** A deposit account that earns interest and is issued by a bank. Not risky. No restrictions on withdrawals. Low or no minimum balances required. Lowest interest rates. Some banks charge fees for opening and maintaining accounts.

## Explanation of the game process

When starting the game, a **tutorial** is available for the users, aiming to explain how the user can navigate in the game and the toolbar options.



At the beginning of the game, the real-based environment is presented to the users, enabling them of understanding the **scenario of the game and the real situation where the concept of the rainy day will have to be used**. As a trainer and/or tutor, you might need to provide some hints to the users before the game. Also, it will be a good option to refresh the **objective of the game** "This game put some ideas into practice to save money for a rainy day without having to rework your entire budget.

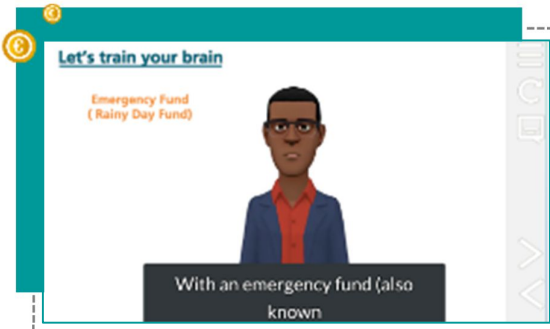


By playing this game you will calculate how much you need to save for a rainy day according to different variables." It is important that the trainer and/or tutor is aware of the game objective and he/she can link it with other training contents, subjects or materials.

Take into account that his individual life needs will affect his savings strategies. Part of creating a good savings plan, whether for an emergency fund or long-term goals, is assessing where his money is best kept for maximizing savings (e.g., saving for building an emergency fund would be best done in an account that allows access to his assets without penalty).

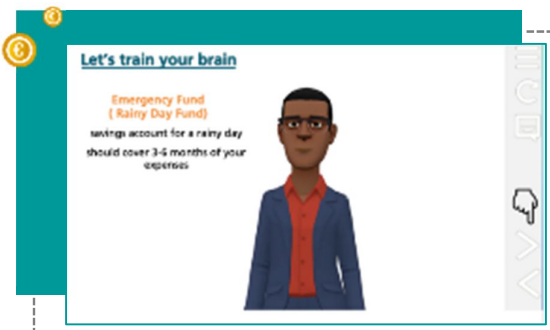
What does he do with the money that he receives from jobs, allowance or tips? Does he spend it? Saves it? Keeps it at home? Deposits it in a bank account? What choices does he make with his money and why?

Before digging in the real game, the users will have access to the section “train your brain”.

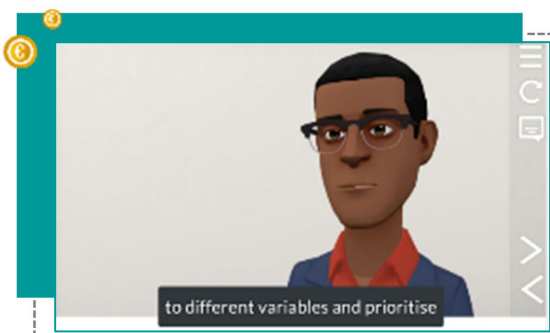


This section aims to present to the users the concept(s) that the games aim to explore. In this case, the concept of making a saving for a rainy day is presented. It is important to highlight to the users that they shall pay attention to the information displayed in this section of the game and that to avoid doubts, it is recommended that they play the section “train your brain” twice.

As a trainer and/or tutor you might opt to explore the concepts with your trainees in a training session and so when using the game, users will refresh their memory and understanding of the concept. On the opposite, you can use the game as a teaser to introduce the concept of saving for a rainy day and then explore it with all groups in a training session.

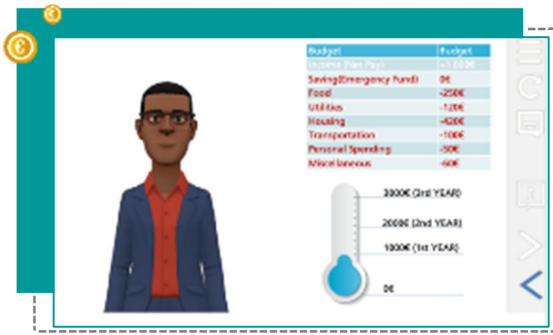


Please note that, besides having the chance of learning and understanding the concept, the users can also see an example of a real saving for a rainy day according to different variables and prioritise the steps that they must follow to build your own *Rainy Day Fund* as soon as possible (in this case, before the car breaks down).



Following this introductory section of the game, the users will have access to playing the game and to use the explained concepts in a real-life scenario. While the game proceeds, some instructions or guiding tips will be displayed to help the users. As a trainer and/or tutor, you must explore the game as a user, before letting the trainees do it.

This will help you to identify any tip or suggestion that you might feel the need to provide them.

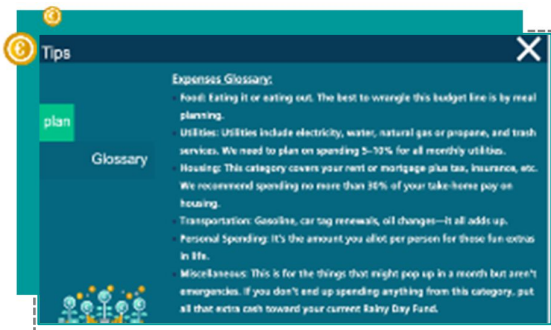
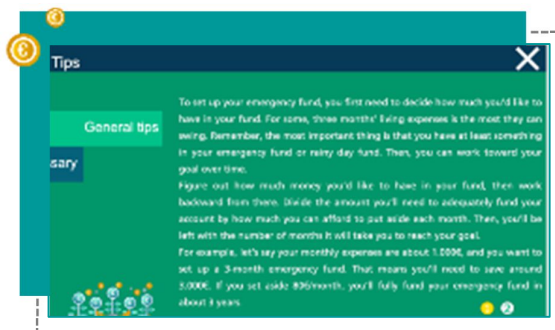


In this specific game, the users should calculate how much do they need to save for a *rainy day* according to different variables and prioritise the steps that must follow to build their own *Rainy Day Fund* as soon as possible (at least, before the car breaks down).

Following this, they will see a sheet with a monthly budget and savings thermometer. Based on savings goals (three months of expenses for unexpected repairs), you see different sentences with some savings strategies to build your *Rainy Day Fund*. *The trainees have to decide* which ones will be helpful and realistic to reach the goal. They buckle down, do the math, and see it's not so hard!

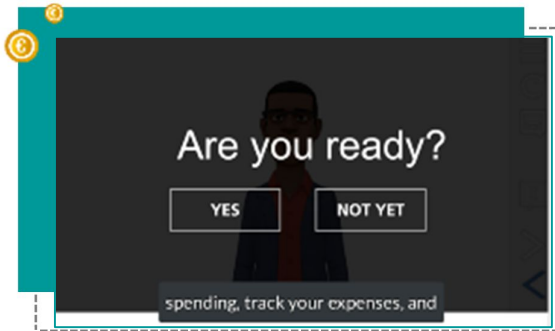
Some important tips that you can opt to provide to the users can be:

- Remind that they have to keep in mind that the job is to add up their plan to spend, track their expenses, and decide which of these tips will help them to reach their saving goal and being safe in front of the unexpected expenses (always, *always* make sure there are not spending more than they make).
- Read the tips with the trainees and make sure that is all clear.
- It is important to understand all expenses glossary and general tips.

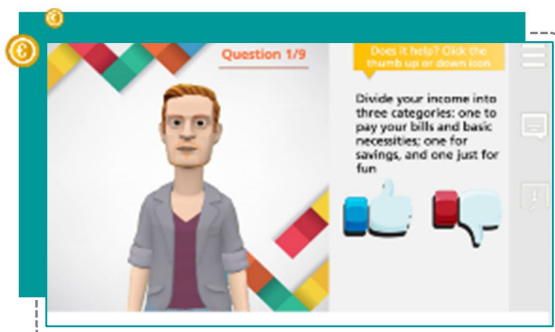


As a trainer/ or tutor you should look before the Tips section to get more into the strategy of the game and explain and clarify any doubts. As you can see you have Generals tips and Glossary.





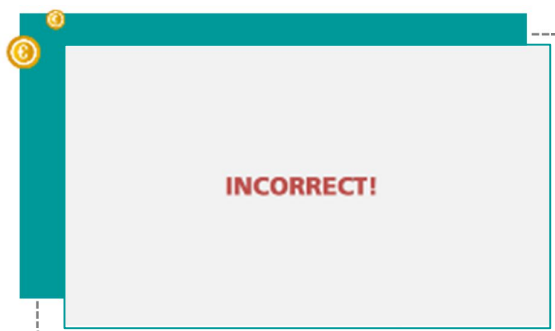
Before starting the game “Are you ready?” message will be displayed and the trainees should select the option. If the users select not yet, you as a trainer/or tutor ask the trainees which are their doubts. It is important to be ready, in order to continue the game.



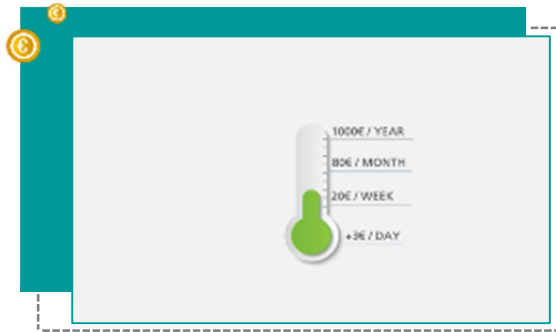
Following this, the trainees will choose the thumb up or down in order to answer several questions. The users should have to think about the different sentences with some savings strategies to build your *Rainy Day Fund* and decide which ones will be helpful and realistic to reach their goal.

Some important tips that you can opt to provide to the users can be:

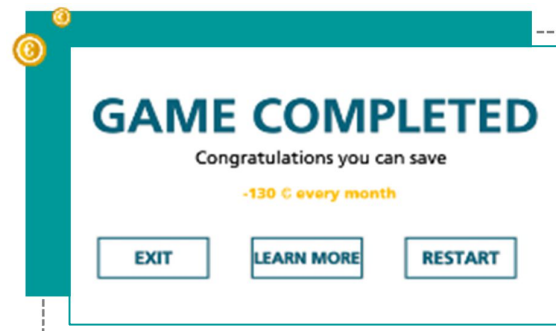
- Figure out how much money the trainees would like to have in their fund.
- Remind that they have to divide the amount they will need to adequately fund their account by how much they can afford to put aside each month.
- It is important that they have at least something in their emergency fund or rainy day fund.



**If the users provide an answer that is not correct**, a friendly warning message will be displayed, and the users will pass to another question. What could have been the problem? It is difficult to perceive in advance why a given user has provided a wrong answer... however, depending on the question it will appear the explanation as a feedback for the user.



On the opposite, if you provide a correct answer, a “congratulations” message will be displayed and you would continue to the following questions. Also, the users will see their emergency fund increase.



After all questions, the users would see their emergency fund and what they saved. Also, in this part trainers/or tutor could make any question for the users to understand the meaning and the save that they obtain. In the same way, the trainers/or tutor could refresh the importance to reserve a percentage each month to be able to save and have an emergency fund.

Also, a “game completed” message will be displayed, with three options for the user:

- To restart the game from the beginning
- To go to the section “wanna learn more?”
- To exit the game.



When completing the game with the correct answer, users will have **access to additional resources** that he/she can consult to learn more about the concept of saving for a rainy day, with information and links.

### Competences developed in each game

With this game, you will be able to develop in your trainees the following competences:

- To know and understand what emergency fund is
- To understand that takes time to build an emergency fund that can maintain your monthly expenses for a period of time.
- Take into account that his/her individual life needs will affect his savings strategies
- To reserve a percentage each month to be able to save.

## NEST EGGS

\*The mini game “Nest eggs“, classify some expenses related to different personal goals (Study Abroad, House Renovation and Having a Baby) to find out how much you will need to save regularly to reach your goals in time and build a savings plan for each goal.\*

### Description of the objective of the game



The objective of this game is to classify some expenses related to different personal goals (Study Abroad, House Renovation and Having a Baby) to find out how much the trainees will need to save regularly to reach their goals in time and build a savings plan for each goal.

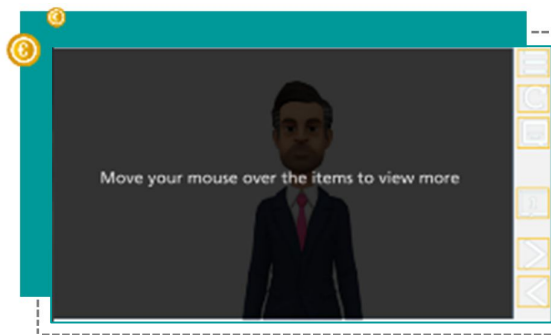
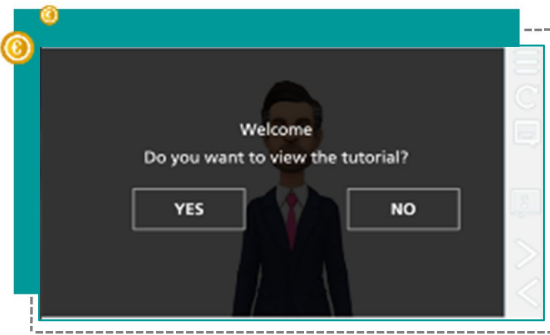
Playing this game with the trainees will help them that taking control of their financial life requires planning, and that starts with setting goals. The goals you set should be specific and have a timeframe attached to them. For example, if trainees' goal might be to save 10€ per week during the next year for a new computer.

This is a **SMART** goal that is **Specific, Measurable, Achievable, Realistic and Time-bound**. Once they have brainstormed some SMART goals, prioritize them according to what is most urgent or most important to them. Make sure each goal has a time frame and then chart their progress each week. The trainee's financial goals are the most important expenses they have.

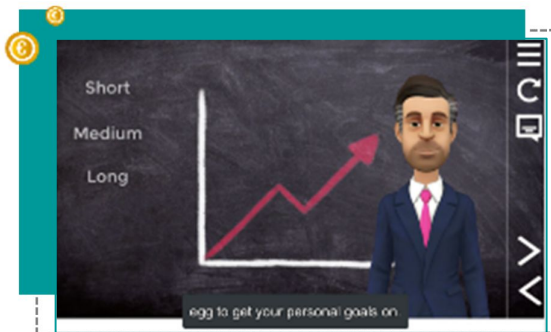
If they do not treat them that way, they will be tempted to spend money on other things, especially those variable expenses like food, clothing and entertainment.

### Explanation of the game process

When starting the game, a **tutorial** is available for the users, aiming to explain how the user can navigate in the game and the toolbar options.



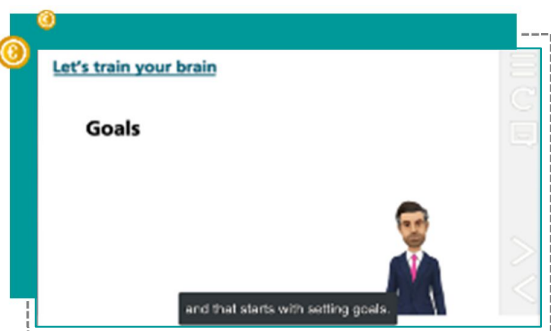
At the beginning of the game, **the game objective** is displayed: “By the end of this game you will be able to identify short, medium- and long-term needs and build a nest egg to get your personal goals on.” It is important that the trainer and/or tutor is aware of the game objective and he/she can link it with other training contents, subjects or materials.

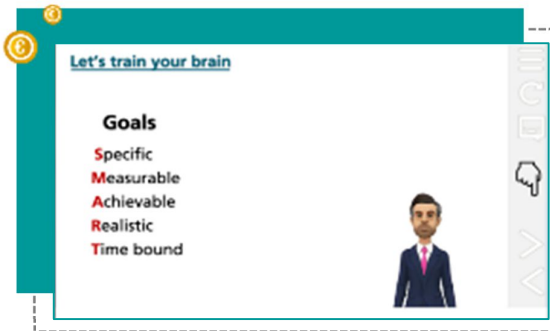


After the presentation of the game objective, the real-based environment is presented to the users, enabling them of understanding the **scenario of the game and the real situation where the concept of building a nest egg to get your personal goal will have to be used**. As a trainer and/or tutor, you might need to provide some hints to the users before the game.

Before digging in the real game, the users will have access to the section “**train your brain**”.

This section aims to present to the users the concept(s) that the games aim to explore. In this case, the concept of getting your personal goal is presented. It is important to highlight to the users that they shall pay attention to the information displayed in this section of the game and that to avoid doubts, it is recommended that they play the section “train your brain” twice.

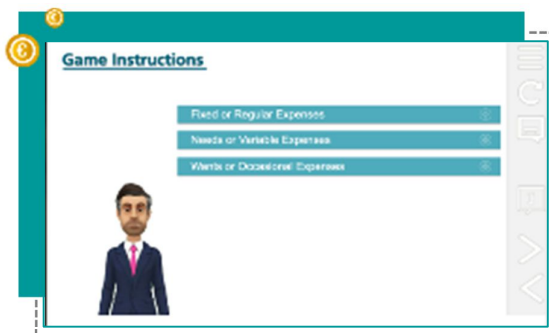




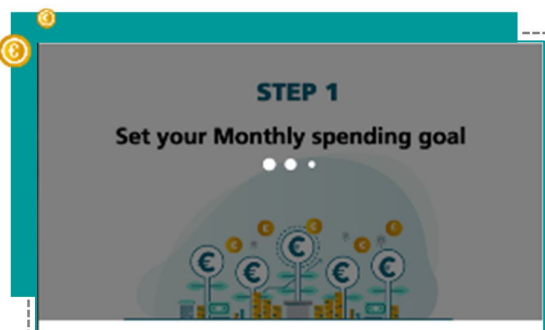
As a trainer and/or tutor you might opt to explore the concepts with your trainees in a training session and so when using the game, users will refresh their memory and understanding of the concept. On the opposite, you can use the game as a teaser to introduce the concept of getting your personal goal and then explore it with all groups in a training session.

Please note that, besides having the chance of learning and understanding the concept, the users can also see an example of a real spending plan goal being applied (in this case get Maria's personal goal).

Following this introductory section of the game, the users will have access to **playing the game** and to use the explained concepts in a real-life scenario. While the game proceeds, some instructions or guiding tips will be displayed to help the users. As a trainer and/or tutor, you must explore the game as a user, before letting the trainees do it.



This will help you to identify any tip or suggestion that you might feel the need to provide them.



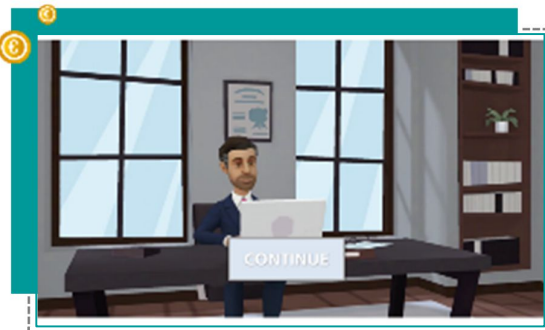
**In this specific game**, the users will have to find out how much you will need to save regularly to reach your SMART goals in time and build a savings plan for each goal. Use their personal financial plan to identify how much they need to save each month or each week to meet your SMART goals.

Use a spending plan to ensure their daily spending habits don't overwhelm your goals. Then, classify their expenditures between "Fixed or Regular Expenses" (bills that you pay each month and tend to be the same amount), "Needs or Variable Expenses" (things you need each month that vary in price) and "Wants or Occasional Expenses" (things you buy, but you probably could live without).

Choose the best strategy in each case according to the plan. Identify their expenses and sources of income. Develop their spending plan and set their SMART goals according to the next worksheets. Each step will challenge to choose the best strategy for the trainees' monthly spending plan, analyze information, set SMART goals, Improve Spending Plan to achieve the SMART goals and select the best way to track spending in the best way that fits their lifestyle. The users should have to think about how much to reach their SMART goals in time and build a savings plan for each goal.

Some important tips that you can opt to provide to the users can be:

- It is important to clearly identify what is a spending plan.
- Remind that the right spending plan can help them to set aside enough to pay their bills, have some savings for emergencies, and some money left over in their pocket every month.
- Create their own short-term **savings goal** and make an action plan to meet that goal can help you to become accountable and make real progress on your path towards financial wellness.
- Goals can be identified as **short-term goals** (can take a short time, or up to 5 years, to reach) and **long-term goals** (can take more than 5 years to achieve).



If the users provide an answer that is not correct, a friendly warning message will be displayed, with the option CONTINUE to repeat the question again. Exceptionally, in STEP 1 if the users provide an answer that is not correct, TRY AGAIN OR RE-TRAIN YOUR BRAIN message will be displayed and they will have to select.

What could have been the problem? It is difficult to perceive in advance why a given user has provided a wrong answer... however, some feedback questions can be formulated so trainers and /or tutors can explore with them what went wrong:

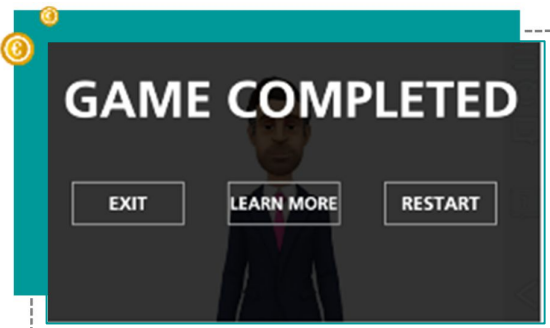
- Did you read carefully the “train your brain” session? Please explain to me the concept of “regular payments, Needs and wants”.
- Which aspects did you consider to make the decision?
- Did you understand the concept of spending plan?
- Did you understand the meanings of the “Fixed or Regular Expenses”, “Needs or Variable Expenses” or “Wants or Occasional Expenses”?

On the opposite, if the users provide a correct answer, a “congratulations” message will be displayed and you would continue to the following questions.



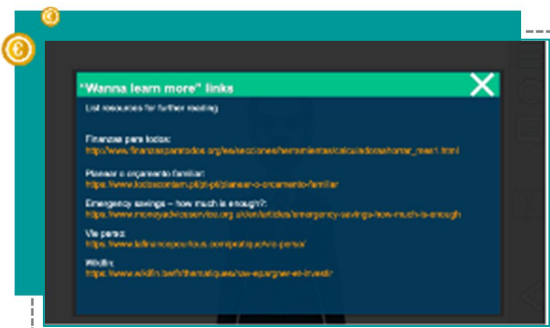
After all questions, the trainers/or tutors should use the results of the different strategies that each user according to their plan will use. Also, in this part trainers/or tutor could make any question depending on the needs that they have observed. In this way, the trainers/or tutors should explain that a spending plan is a simple strategy for making the most of their money and reaching your financial goals.

How do they create a spending plan? On a simple, one-page form they write down the money that they have coming in and what they spend in an average month. Putting it down on paper helps them see where they can improve and make better money decisions. The right spending plan can help them set aside enough to pay their bills, have some savings for emergencies, and some money left over in their pocket every month.



When the users completed all the mini-game “Game completed” message will be displayed, with three options for the users:

- To restart the game from the beginning
- To go to the section “learn more?”
- To exit the game



When completing the game with the correct answer, users will have **access to additional resources** that he/she can consult to learn more about the concept of getting a personal goal, with information and links.

### Competences developed in each game

With this game, you will be able to develop in your trainees the following competences:

- To know and understand what a spending plan is
- To understand the importance of taking control of financial life requires planning, and that starts with setting goals.
- To know that goals can be identified as **short-term goals, medium-term goals, and long-term goals.**





## RETIREMENT CLOCK

\*The mini-game “Retirement Clock” promotes the understanding of how important it is to make financial decisions thinking about the future, and the importance of not borrowing heavily or living above the possibilities.

### Description of the objective of the game



The objective of this game is to explore the concept of Career management and future financial decisions with the trainees and make them aware of how many ways of preparing the future are possible.

Furthermore, it draws attention to the fact that Retirement incomes depend on both personal and public contributions.

Upon completion of the mini-game, users will

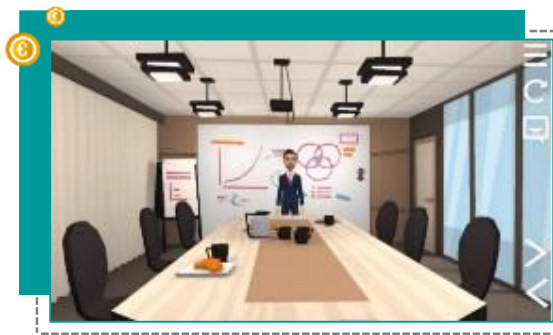
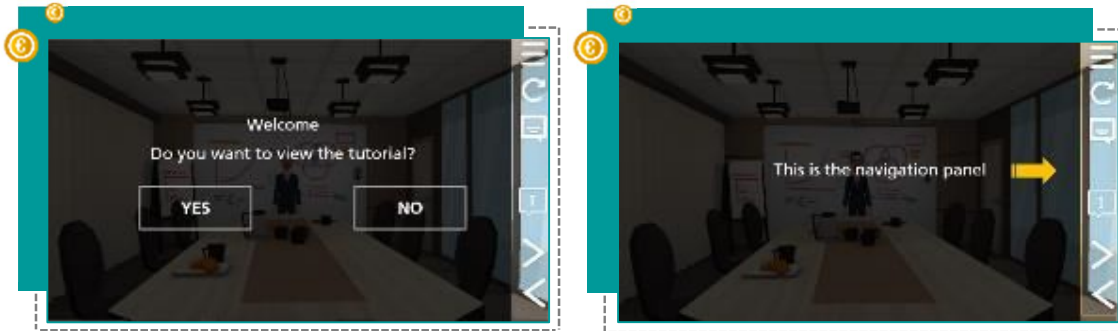
- Obtain their first job
- Get Promoted
- Manage their career
- Make housing decisions
- Make transportation decisions
- Make future decisions for retirement funds

They will have to make decisions based on the previous options they have been deciding, which will allow them to earn more or less money and have more or fewer expenses.

This will also allow them to allocate a portion of their savings to their future retirement, but without neglecting the management of their current income. Based on their decisions they will have a better retirement or not, learning how important is to plan and manage our future.

## Explanation of the game process

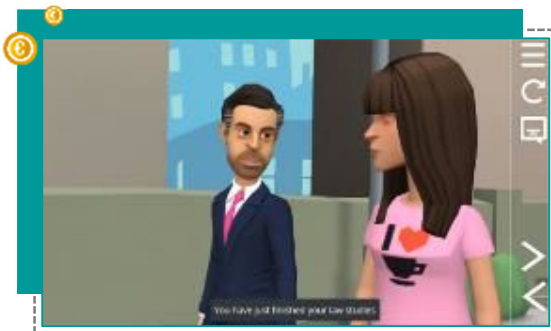
When starting the game, a **tutorial** is available for the users, aiming to explain how the user can navigate in the game and the toolbar options.



At the beginning of the game, the **game objective** is displayed: “By the end of the game you will have learned how important is to make financial decisions thinking about the future and the importance of not borrowing heavily or living above the possibilities.” It is important that the trainer and/or tutor is aware of the game objective and he/she can link it with other training contents, subjects, or materials.



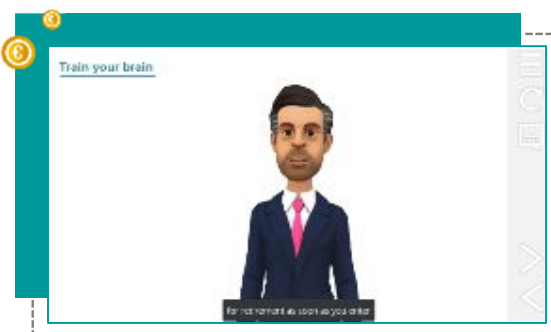
After the presentation of the game objective, users must start making decisions in order to achieve their ideal lifestyle. The first selection is choosing a character! Throughout the game, users will be able to see different lifestyles and will be able to see the consequences of the decisions they make.



After the character selection, the real-based environment is presented to the users, enabling them of understanding the **scenario of the game** and the real situation where the concept of Career management, future financial decisions and retirement funds will have to be used. It's now when users start to build their future, make housing and transportation decisions.



As a trainer and/or tutor, you might need to provide some hints to the users before the game. Before digging in the real game, the users will have access to the section **“train your brain”**. This section aims to present to the users the concept(s) that the games aim to explore.



In this case, the concept of Career management and future financial decisions is presented. It is important to highlight to the users that they shall pay attention to the information displayed in this section of the game and that to avoid doubts, it is recommended that they assist the section **“train your brain”** twice.

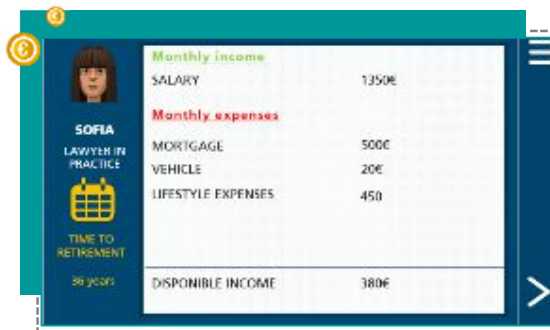
As a trainer and/or tutor you might opt to explore the concepts with your trainees in a training session and so when using the game, users will refresh their memory and understanding of the concept.

On the opposite, you can use the game as a teaser to introduce these concepts and then explore it with all groups in a training session. Please note that, besides having the chance of learning and understanding the concept, the users can also see different examples of lifestyles and savings so they will be able to see the consequences of the decisions they make.



Following this introductory section of the game, the users will have access to **playing the game** and to use the explained concepts in a real-life scenario. While the game proceeds some instructions or guiding tips will be displayed to help the users.

As a trainer and/or tutor, you must explore the game as a user, before letting the trainees do it. This will help you to identify any tip or suggestion that you might feel the need to provide them. **In this specific game**, the users will have to simulate the labour life of the chosen character, living his/her important moments with his/her conditions.



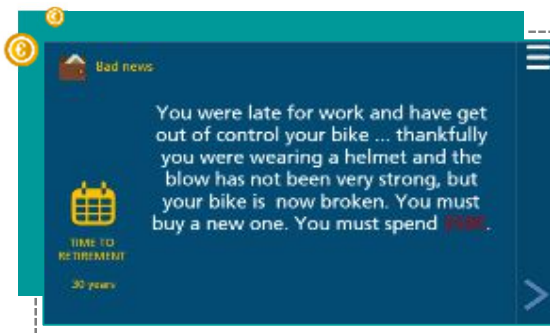
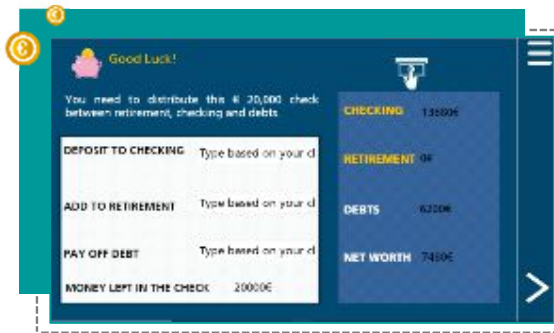
<b>Monthly income</b>	
SALARY	1350€
<b>Monthly expenses</b>	
MORTGAGE	500€
VEHICLE	20€
LIFESTYLE EXPENSES	450
<b>DISPONIBLE INCOME</b>	
	380€



Different questions relating to the character's job position, new business opportunities and eventualities will be surging through the game. The challenge is to manage all incomes and expenses over time until the moment of the character's retirement arrives.

It is important to make sure that the users understand that in the game, the time will be running, concretely, **3 years between question cards**.

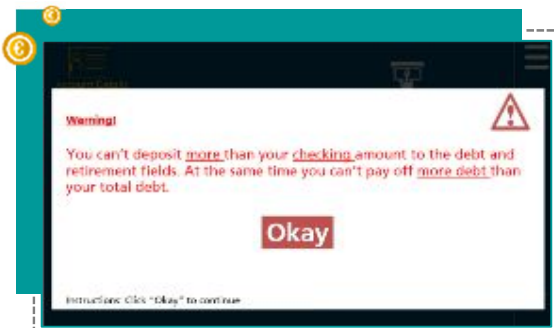
**In this minigame, there won't be correct or wrong answers** since is just one of the possible lifestyles, so any answer is valid. Depending on what answer users choose, they will receive a bigger or smaller amount of money and sometimes, they will lose a bigger or smaller amount of money.



After each question card, depending on users' choice there can be a Manage card where they must decide how to distribute an extra check (if they are lucky) between retirement, checking and debts or a review card where users can see the results of having bad news.



The most important part of the game is the option "Account Details". There, users can distribute their incomes (checking) in order to pay their debts or to increase their retirement savings every time they see its icon.



If the users provide a distribution that is not correct (more money than the amount they have) a friendly warning message will be displayed, giving the possibility to try again the exercise.

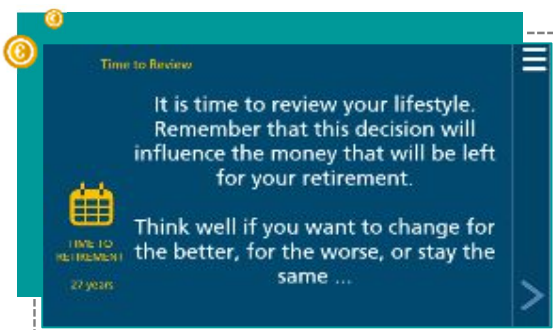
What could have been the problem? It is difficult to perceive in advance why a given user has provided a wrong answer...

However, some feedback questions can be formulated so trainers and /or tutors can explore with them what went wrong:

- Did you read carefully the “train your brain” session?
- Did you understand the different concepts of the account details?

As a trainer and/or tutor, it is important to highlight to users that the goal of the game is to reach retirement age with enough money to live a full life without having to work the last years of life. The more money users set aside for retirement, the better lifestyle they will have at the end of the game.

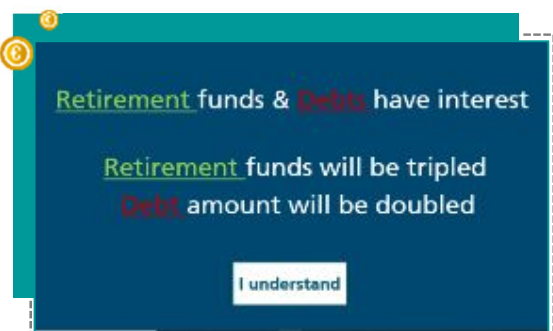
The most important thing in this game is not to live above expectations. And know how to decide well where to invest money.



From question card to question card, a Time to Review card sometimes appears to facilitate users better management of their character’s lifestyle. This means, that they can make again housing and transportation decisions if they want to change the first selected ones.



When the Time to Retirement reaches zero, users won’t have more opportunities to save or invest money, the future will have arrived. In the game, to make it real, interests will be applied to users’ accounts and they will see a message of their expectant retired life.



Depending on their secured years of retirement, users will receive different advices in order to understand the importance of making financial decisions thinking about the future, and the importance of not borrowing heavily or living above the possibilities.



When the users completed all the mini-game “End of game” message will be displayed, with two options for the users:

- To restart the game from the beginning
- To exit the game

### Competences developed in each game

With this game, you will be able of developing in your trainees the following competences:

- To manage financial decisions about lifestyle
- To manage a career
- To understand the importance of planning and saving
- To understand the consequences of borrowing heavily or living above the possibilities.

## B. Money & Transactions minigames

### CHOOSE AND JOIN



\*The mini-game “Choose and Join”, explores the concept of the exchange rate. By playing this game you will be able to count notes and coins to make an amount and convert that amount into a different currency\*

### Description of the objective of the game



The objective of this game is to explore the concept of an exchange rate with the trainees and make them aware of the need of understanding what is an exchange rate and to explain to them how to convert a given amount in currency to a different currency.

It is also an occasion to introduce the EURO as a single currency from a group of countries in the European Union and the advantages (for citizens

and business in general) of the adoption of a single currency by a group of countries.

In a world full of opportunities to travel and to work abroad, it is important that everyone is familiar with this concept and learn how to use it. Even though most of the countries of the European Union use the same currency (EURO) and thus converting money to another currency is not a daily need for everyone, there are still countries inside the union that remain using their national currencies, namely:

- Bulgaria
- Croatia
- Czechia
- Denmark
- Hungary
- Poland
- Romania
- Sweden

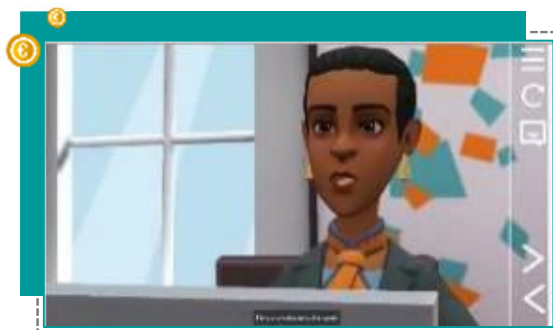
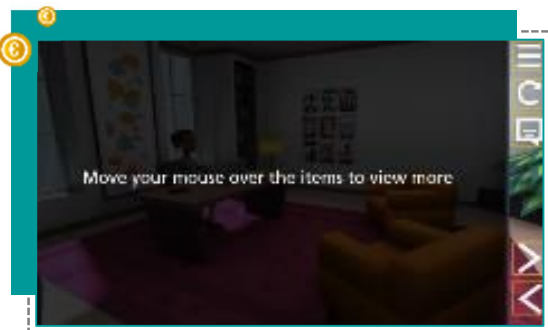
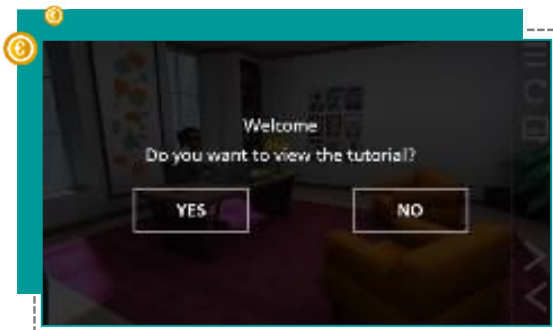


Looking outside the European Union, each country has its currency and so when travelling to any of those countries the understanding of what is an exchange rate, where to find information about it and how to use it daily is very important.

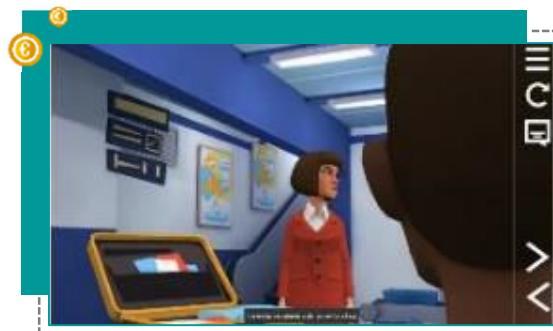
At the same time, the game also contributes to improving the users' skills in counting notes and coins to perform an amount.

### Explanation of the game process

When starting the game, a **tutorial** is available for the users, aiming to explain how the user can navigate in the game and the toolbar options.



At the beginning of the game, the **game objective** is displayed: "Upon completion of the mini-game you will be able to count notes and coins to make an amount and convert that amount into a different currency". It is important that the trainer and/or tutor is aware of the game objective and he/she can link it with other training contents, subjects or materials.

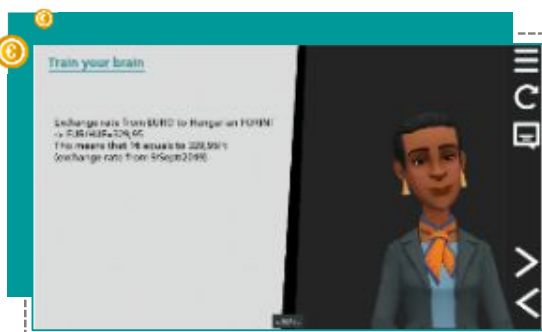


After the presentation of the game objective, the real-based environment is presented to the users, enabling them of understanding the **scenario of the game and the real situation where the concept of exchange rate will have to be used**. As a trainer and/or tutor, you might need to provide some hints to the users before the game.

Before digging in the real game, the users will have access to the section “train your brain”.



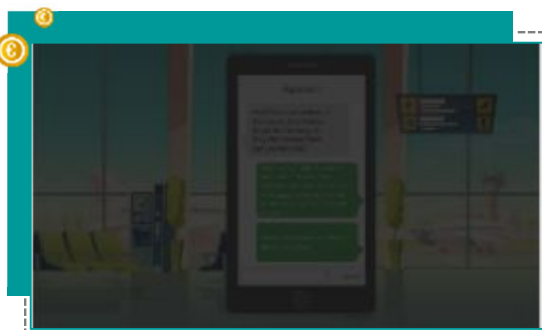
This section aims to present to the users the concept(s) that the games aim to explore. In this case, the concept of the exchange rate is presented. It is important to highlight to the users that they shall pay attention to the information displayed in this section of the game and that to avoid doubts, it is recommended that they assist the section “train your brain” twice.



As a trainer and/or tutor you might opt to explore the concepts with your trainees in a training session and so when using the game, users will refresh their memory and understanding of the concept. On the opposite, you can use the game as a teaser to introduce the concept of the exchange rate and then explore it with all groups in a training session.

Please note that, besides having the chance of learning and understanding the concept, the users can also see an example of a real exchange rate is applied (in this case the exchange rate from EURO to Hungarian Forint, the currency in use in Hungary).

It is important to highlight that the exchange rates provided are the rates available on 9<sup>th</sup> September 2019 and thus they might not correspond to the real staff rates.



Following this introductory section of the game, the users will have access to **playing the game** and to use the explained concepts in a real-life scenario. While the game proceeds some instructions or guiding tips will be displayed to help the users.



As a trainer and/or tutor, you must explore the game as a user, before letting the trainees do it. This will help you to identify any tip or suggestion that you might feel the need to provide them.

**In this specific game**, the users will have to choose which amount of EURO they intent to exchange into Hungarian Forints.

They will have the chance to select 20€, 50€ or 100€.

After they have selected the amount in EURO to convert, a set of Hungarian Forints notes and coins will be displayed so the user can pick them, sum them to reach the desired amount in Hungarian Forints, and add them to the wallet. When they reach the necessary amount, they must click in the wallet to see the result. A calculator is available at the options bar located on the right side of the screen.

Some important tips that you can opt to provide to the users can be:

- Remind them that they can use the calculator provided in the toolbar
- Inform them that they can only select up to two notes and will have to use as much as need coins. At the same time, all the coins shall be used.
- Advise them to pay attention to the notes and coins provided as they are from a currency that is not familiar for them



**If the users provide an answer that is not correct**, a friendly warning message will be displayed, with three options for the user:

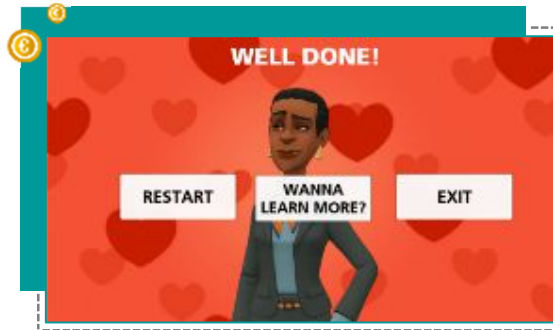
- To restart the game from the beginning
- To try again the exercise
- To exit the game

What could have been the problem? It is difficult to perceive in advance why a given user as provided a wrong answer... however, some feedback questions can be formulated so trainers and /or tutors can explore with them what went wrong:

- Did you read carefully the “train your brain” session? Please explain to me the concept of “exchange rate”.
- How did you calculate the amount in Hungarian Forints?
- Did you use all the coins to put the correct amount of Hungarian Forints in the wallet?

On the opposite, if the users provide a correct answer, a “well done” message will be displayed, with three options for the user:

- To restart the game from the beginning
- To go to the section “wanna learn more?”
- To exit the game



When completing the game with the correct answer, users will have **access to additional resources** that he/she can consult to learn more about the concept of the exchange rate, the list of countries using EURO and the link to the official currency converter of the European Union.

### Competences developed in each game

With this game, you will be able of developing in your trainees the following competences:

- To know and understand what an exchange rate is
- To understand that this rate is volatile, subject to change over time
- To know how to convert amounts from one currency to another currency
- To count notes and coins correctly.

## LET'S EXCHANGE

\*The mini-game “Let’s Exchange”, explores the concept of the exchange rate. By playing this game you will be able to apply currency exchange rates for an available budget.\*

### Description of the objective of the game



The objective of this game is to explore the concept of an exchange rate with the trainees and make them aware of the need of understanding what is an exchange rate and to explain to them how to apply currency exchange rates for an available budget. Although the game introduces the concept of “budget” as a limitation of how much a person can spend in a given moment or a specific type of products or services, it does not provide sufficient

training information to develop the skills associated with budgeting or managing a budget. These issues will be explored in other games. Even so, you can refer to the concept of what is a budget and what is it for.

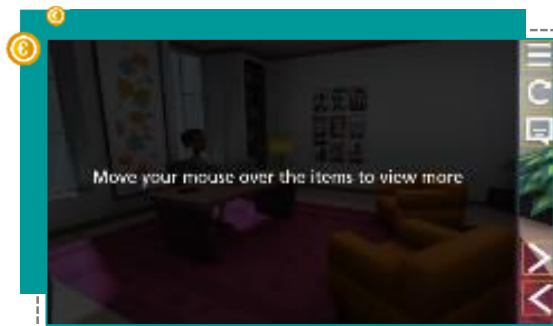
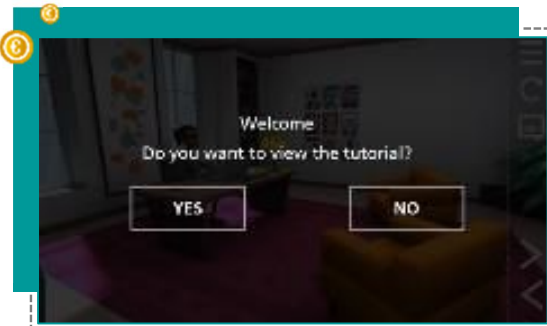
It is also an occasion to introduce or reinforce the EURO as a single currency from a group of countries in the European Union and the advantages (for citizens and business in general) of the adoption of a single currency by a group of countries. Currently, eight countries in the European Union still use their national currencies:

Country	Currency	Country	Currency
Bulgaria	Bulgarian Lev	Hungary	Hungarian Forint
Croatia	Croatian Kuna	Poland	Polish Zloty
Czechia	Czech Koruna	Romania	Romanian Leu
Denmark	Danish Krone	Sweden	Swedish Krona

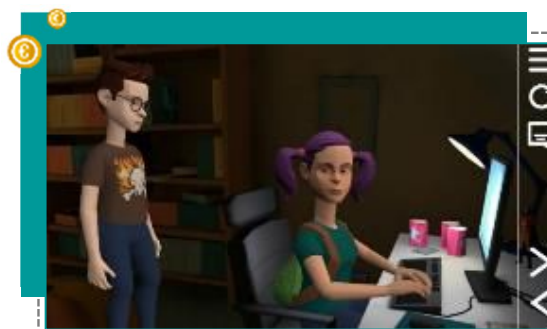
In a digital world, more and more transactions are being done online for buying goods and services, enabling anyone of pretty much buy anything from an online shop or online services provider located anywhere in the globe. If some online providers sell in EURO, because they are located in a country of the European Union, or because they incorporate that facility in their online shop, often we are confronted with online shops that offer products and services in other currencies than EURO.

## Explanation of the game process

When starting the game, a **tutorial** is available for the users, aiming to explain how the user can navigate in the game and the toolbar options.

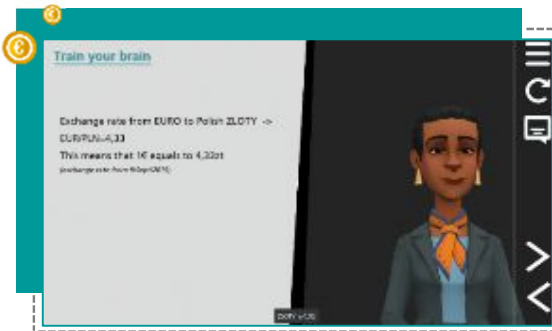


At the beginning of the game, the **game objective** is displayed: "Upon completion of the mini-game you will be able to apply currency exchange rates for an available budget". It is important that the trainer and/or tutor is aware of the game objective and he/she can link it with other training contents, subjects, or materials.

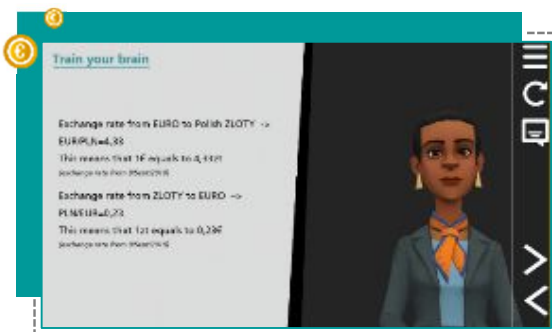


After the presentation of the game objective, the real-based environment is presented to the users, enabling them of understanding the **scenario of the game and the real situation where the concept of exchange rate will have to be used**. As a trainer and/or tutor, you might need to provide some hints to the users before the game.

Before digging in the real game, the users will have access to the section "**train your brain**".



This section aims to present to the users the concept(s) that the games aim to explore. In this case, the concept of the exchange rate is presented. It is important to highlight to the users that they shall pay attention to the information displayed in this section of the game and that to avoid doubts, it is recommended that they assist the section “train your brain” twice.



As a trainer and/or tutor you might opt to explore the concepts with your trainees in a training session and so when using the game, users will refresh their memory and understanding of the concept. On the opposite, you can use the game as a teaser to introduce the concept of the exchange rate and then explore it with all groups in a training session.

Please note that, besides having the chance of learning and understanding the concept, the users can also see an example of a real exchange rate is applied (in this case the exchange rate from EURO to Polish Zloty, the currency in use in Poland).

It is important to highlight that the exchange rates provided are the rates available on 9<sup>th</sup> September 2019 and thus they might not correspond to the real staff rates.

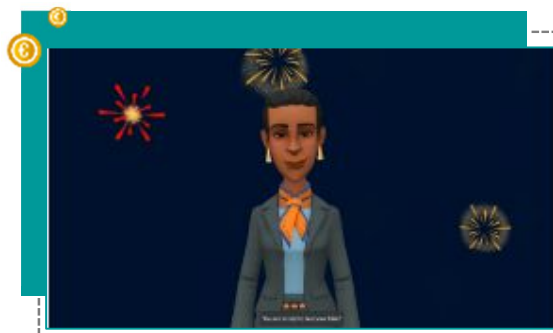


Following this introductory section of the game, the users will have access to **playing the game** and to use the explained concepts in a real-life scenario. While the game proceeds some instructions or guiding tips will be displayed to help the users. As a trainer and/or tutor, you must explore the game as a user, before letting the trainees do it. This will help you to identify any tip or suggestion that you might feel the need to provide them.



In this specific game, the users will have to simulate the buying of a bicycle and a helmet from a polish online shop knowing in advance that their budget is 100€ and that the prices are displayed in Polish Zlotys. They are also informed that, for this game, 1€ corresponds to 4.33Zt (Polish Zloty). The game proceeds, by presenting the price for a helmet in Polish Zlotys (60Zt) and the users will have to calculate how much is the 60Zt in EURO.

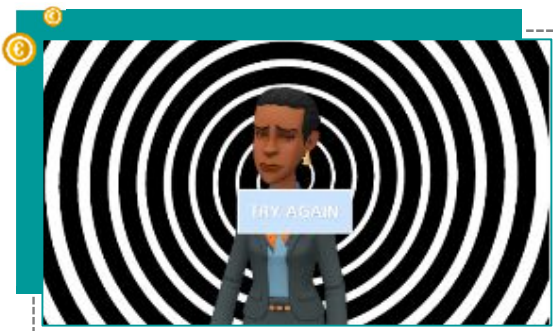
The users have access to a calculator at the right-side panel and some tips in the information bottom, which explains how to calculate the price of the helmet in Polish Zlotys. Shall the users choose the correct answer a success message will be displayed, and they will be able to proceed with the game.



If the users fail in calculating the price in EURO, a try again message will appear, and the users will be requested to resume the game and re-do the calculation.

Some important tips that you can opt to provide to the users can be:

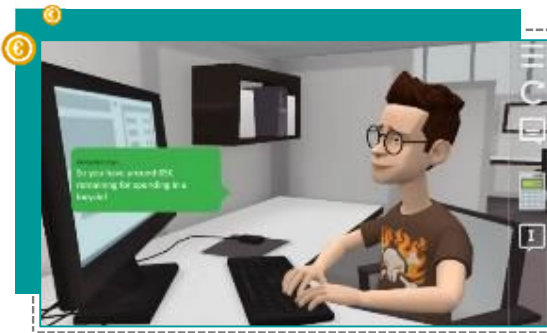
- Remind them that they can use the calculator provided in the toolbar and can also consult the tips provided.
- Advise them that they need to consider the exchange rate given at the beginning of the exercise



What could have been the problem? It is difficult to perceive in advance why a given user as provided a wrong answer... however, some feedback questions can be formulated so trainers and /or tutors can explore with them what went wrong:



- Did you read carefully the “train your brain” session? Please explain to me the concept of “exchange rate”.
- How did you calculate the amount in EURO?
- Did you use the correct exchange rate value?



The next step in the game is to **find out what type of bicycle the two friends can buy considering the remaining amount in EURO after having bought the helmet (85€).**

However, the prices for different models of bicycles are provided in Polish Zloty, meaning that the **users will have to calculate the prices that are presented to them in EURO**, so they can identify the bicycle or bicycles that they can buy with the remaining budget. The users have access to a calculator at the right-side panel and some tips in the information bottom, which explains how to calculate the price of each Bicycle in EUROS.

There is more than one corrected question as to the bicycles with prices below the 360Zt fit the available budget. Shall the users choose any of the correct answers a success message will be displayed, and they will be able to proceed with the game. If the users fail in selecting one of the options, filling in calculating the price in EURO, a try again message will appear, and the users will be requested to resume the game and re-do the calculation.



Some important tips that you can opt to provide to the users can be:

- Remind them that they can use the calculator provided in the toolbar and can also consult the tips provided
- Advise them that they need to consider the exchange rate given at the beginning of the exercise

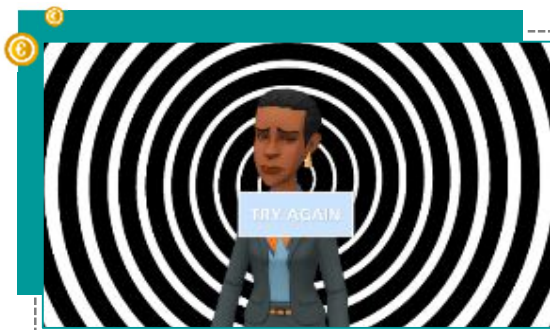
What could have been the problem? It is difficult to perceive in advance why a given user as provided a wrong answer... however, some feedback questions can be formulated so trainers and /or tutors can explore with them what went wrong:

- Did you read carefully the “train your brain” session? Please explain to me the concept of “exchange rate”.
- How did you calculate the amount in EURO?
- Did you use the correct exchange rate value?

The game proceeds with another calculation. The users will have to **confirm that they have selected a bicycle that they can afford with the available budget**, by calculating the exact price of the bicycle in EUROS. Once again, the users have access to a calculator at the right-side panel and some tips in the information bottom, which how to calculate the price in Polish Zlotys.



If the users provide an answer that is not correct, a friendly warning message will be displayed, for him/her to try again. In such a case, the trainer/tutor can provide the same guidance as above.



If the users provide a correct answer, a “well done” message will be displayed, with three options for the user:

- To restart the game from the beginning
- To go to the section “wanna learn more?”
- To exit the game





When completing the game with the correct answer, users will have **access to additional resources** that he/she can consult to learn more about the concept of the exchange rate, the list of countries using EURO and the link to the official currency converter of the European Union, and a list of currencies in the world.

### Competences developed in each game

With this game, you will be able of developing in your trainees the following competences:

- To know and understand what an exchange rate is
- To understand that this rate is volatile, subject to change over time
- To know how to convert amounts from one currency to another currency
- To understand the basics of the concept of a budget.

## SCORE A GOAL

\*The mini-game “Score a Goal”, explores the concept of discount in a price and how to proceed in order to complete a transaction. A discount on a price of a good or service it is often called as trade discount.

### Description of the objective of the game



The objective of this game is to explore the concept of a discount in a price with the trainees and make them aware of the need of understanding how to calculate the discount and the final price of a good or service, enabling them to understand if they are doing a good deal, comparing the final price of a good or service with a discount with another good or service price with no discount.

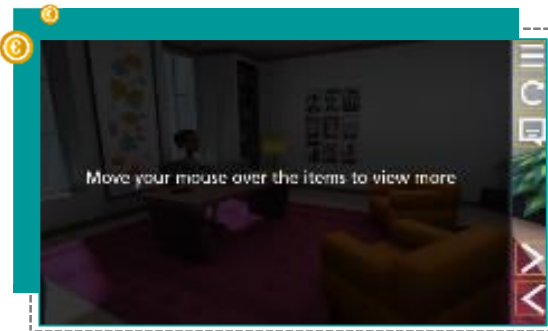
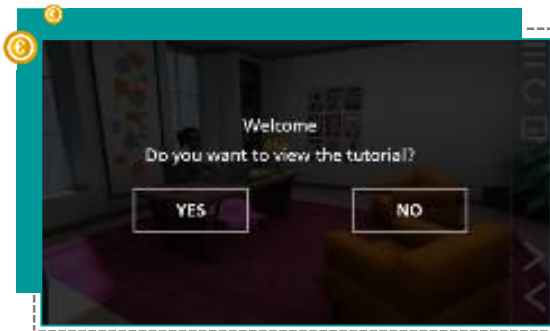
A discount on the price of a good or service is often called a trade discount.

During the game, you will be able to introduce or consolidate other concepts and knowledge such as the conversion of a percentage to a decimal number, as well as basic mathematic operations.

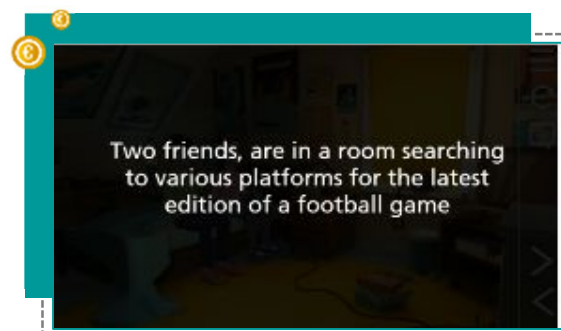
It is very usual to find promotions and sales in shops, online shops, and services for any type of goods or services and there is a tendency of the buyers to immediately buy just because a discount is offered. Traditionally this not reflected act is called impulse purchase or impulse buying and sometimes leads to bad decisions. It is important to sensitize the trainees to the need to refrain impulse purchase or impulse buying and calculate adequately the discount and final price to pay as well as to compare that given price with other similar offers.

### Explanation of the game process

When starting the game, a **tutorial** is available for the users, aiming to explain how the user can navigate in the game and the toolbar options. Users can consult the tutorial to understand how to use the navigation panel before starting the game. This is an option; thus, the trainees can skip it.



At the beginning of the game, the **game objective** is displayed: “Upon completion of the mini-game you will be able to identify the notion of discount and you will understand how to proceed to complete a transaction”. It is important that the trainer and/or tutor is aware of the game objective and he/she can link it with other training contents, subjects, or materials.



After the presentation of the game objective, the real-based environment is presented to the users, enabling them of understanding the **scenario of the game and the real situation where the concept of discount rate in a price will have to be used**. As a trainer and/or tutor, you might need to provide some hints to the users before the game.

Before digging in the real game, the users will have access to the section “**train your brain**”.



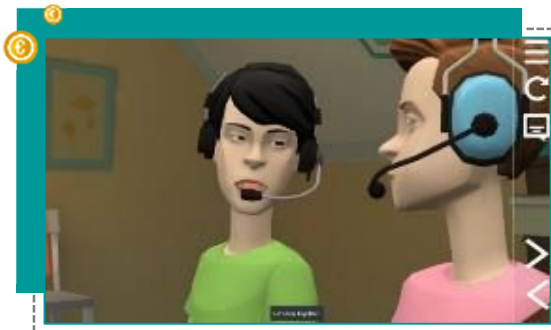
This section aims to present to the users the concept(s) that the games aim to explore. In this case, the concept of the trade discount is presented. It is important to highlight to the users that they shall pay attention to the information displayed in this section of the game and that to avoid doubts, it is recommended that they assist the section “train your brain” twice.



As a trainer and/or tutor you might opt to explore the concepts with your trainees in a training session and so when using the game, users will refresh their memory and understanding of the concept. On the opposite, you can use the game as a teaser to introduce the concept of the trade discount and then explore it with all groups in a training session.

Please note that, besides having the chance of learning and understanding the concept, the users can also see an example of how to calculate the discount amount and how to calculate the final price to pay.

At the same moment, the operation of converting a percent to a decimal number is also explained. It is important to highlight that the trade discounts offered differ a lot: they can vary in amount (5%, 10%, 15%, etc) and in the way that they are applicable (to one unit bought, to the second unit if you buy two units, etc.).



Following this introductory section of the game, the users will have access to playing the game and to use the explained concepts in a real-life scenario. While the game proceeds some instructions or guiding tips will be displayed to help the users. As a trainer and/or tutor, you must explore the game as a user, before letting the trainees do it.

This will help you to identify any tip or suggestion that you might feel the need to provide them.



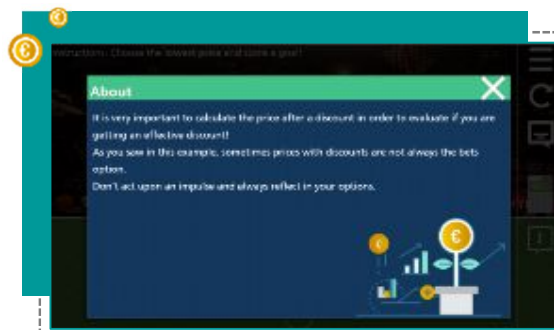
**In this specific game**, the users will have to simulate the buying of a just-released football game, but with some limitations, as the two friends do not have too much money available. As such they will have to search for the best price.

In this scenario, the users of the game will be offered at different prices for buying the same football game. Some prices come with a trade discount and others do not. They will have to calculate all the discounts and final prices to understand which one is the best price.

The game proceeds, by presenting some prices for the same football game. The users will have to calculate the final prices to pay for each offer and then select the best price. There are four prices presented to them:

- 70€ with a trade discount of 25%
- 50€ with no discount offered
- 80€ with a trade discount of 40%
- 120€ with a huge trade discount of 55%.

The users have access to a calculator at the right-side panel and some tips in the information bottom, which explains the importance of calculating the trade discounts correctly and of comparing different prices before buying by impulse.



If the users fail in calculating the final price of the football game, a try again message will appear, and the users will be requested to resume the game and re-do the calculation.

Some important tips that you can opt to provide to the users can be:

- Remind them that they can use the calculator and can also consult the tips
- Advise them that they need to convert the trade discount from a percentage to a decimal number to calculate the value of the discount. And only after they can subtract the value of the discount to the original price, obtaining the final price to pay.

What could have been the problem? It is difficult to perceive in advance why a given user as provided a wrong answer... however, some feedback questions can be formulated so trainers and /or tutors can explore with them what went wrong:

- Did you read carefully the “train your brain” session? Please explain to me the concept of “trade discount”.
- How did you calculate the amount of the discount?
- And the final price?

If the users provide a correct answer, they will have scored a goal! And a “continue” message will be displayed. By hitting “continue”, three options will be offered to the users:

- To restart the game from the beginning
- To go to the section “wanna learn more?”
- To exit the game



When completing the game with the correct answer, users will have **access to additional resources** that he/she can consult to learn more about the concept of the trade discount, how to calculate a discount and how to spot and avoid fake discount offers in prices of services and goods.

### Competences developed in each game

With this game, you will be able of developing in your trainees the following competences:

- To know and understand what a trade discount rate is
- To understand that this rate is volatile, and differs depending on the sellers’ options
- To know how to convert a percent amount into a decimal amount
- To know how to calculate the amount of discount and the final price.



## PLAY WITH INTEREST

\*The mini-game “Play with interests”, explores the concept of the interest rate. By playing this game you will be able to identify the notion of interest rate applied when you buy a product or a service using and will know how to proceed with a transaction. \*

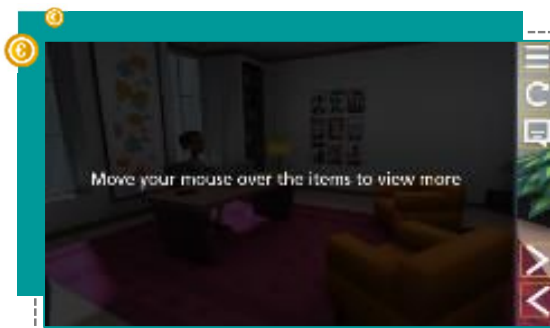
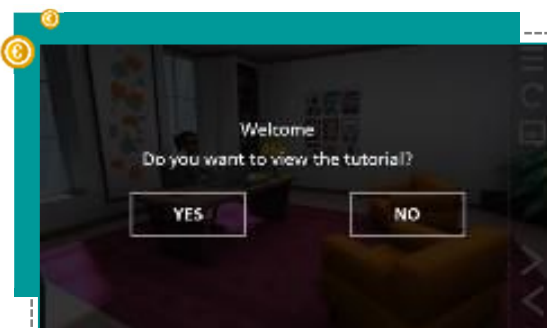
### Description of the objective of the game



The objective of this game is to explore the concept of interest rate with the trainees. Knowing how to calculate interest rates will allow them to buy goods and services in a more informed way and adjusted to their budget and their current context of life.

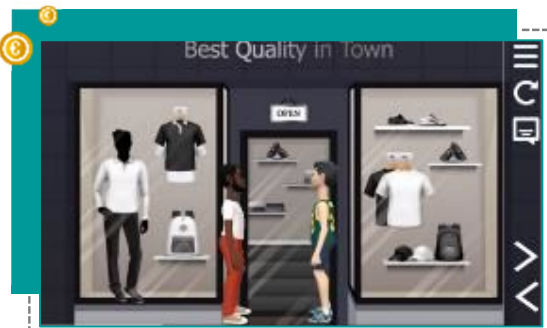
### Explanation of the game process

When starting the game, a **tutorial** is available for the users, aiming to explain how the user can navigate in the game and the toolbar options.



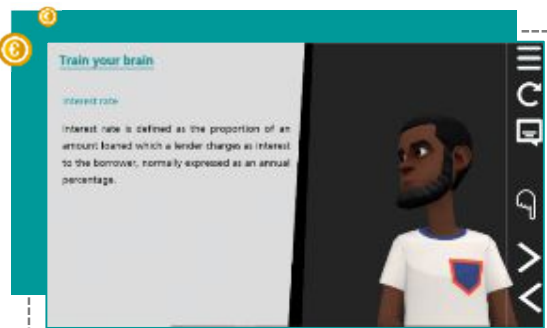


At the beginning of the game, the **game objective** is displayed: “Upon completion of the mini-game you will be able to identify the notion of the interest rate applied when you buy a product or a service user and will know how to proceed with a transaction”. It is important that the trainer and/or tutor is aware of the game objective and he/she can link it with other training contents, subjects or materials.

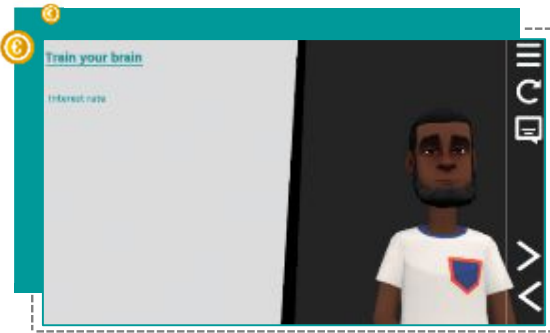


After the presentation of the game objective, the real-based environment is presented to the users, enabling them of understanding the **scenario of the game and the real situation where the concept of interest rate will have to be used**. As a trainer and/or tutor, you might need to provide some hints to the users before the game.

Before digging in the real game, the users will have access to the section “**train your brain**”.

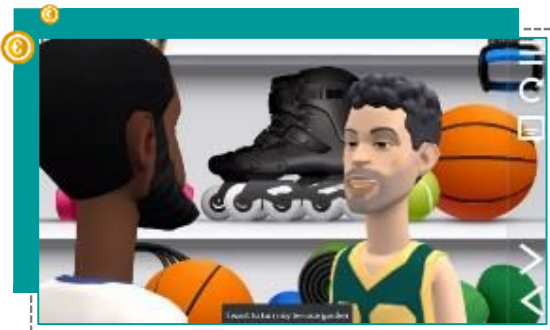


This section aims to present to the users the concept(s) that the games aim to explore. In this case, the concept of the interest rate is presented. It is important to highlight to the users that they shall pay attention to the information displayed in this section of the game and that to avoid doubts, it is recommended that they assist the section “train your brain” twice.

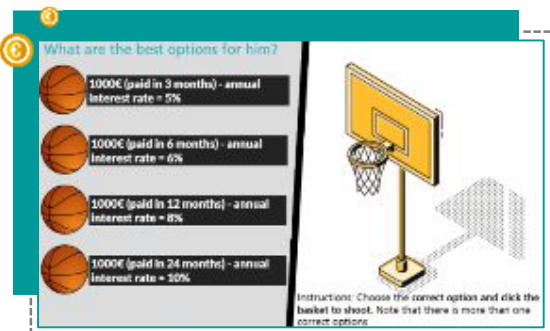


As a trainer and/or tutor you might opt to explore the concepts with your trainees in a training session and so when using the game, users will refresh their memory and understanding of the concept. On the opposite, you can use the game as a teaser to introduce the concept of the interest rate and then explore it with all groups in a training session.

Please note that, besides having the chance of learning and understanding the concept, the users can also see an example of a real interest rate is applied (in this case how to calculate an interest rate for a credit of 3 months).



Following this introductory section of the game, the users will have access to **playing the game** and to use the explained concepts in a real-life scenario. While the game proceeds some instructions or guiding tips will be displayed to help the users.



As a trainer and/or tutor, you must explore the game as a user, before letting the trainees do it. This will help you to identify any tip or suggestion that you might feel the need to provide them. **In this specific game**, the users will have to choose the best payment option considering that the character can only pay 100 euros/month.

They will have the chance to select:

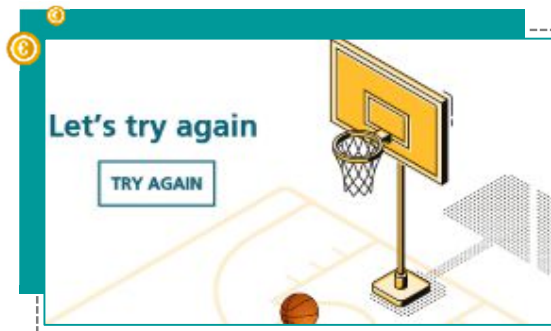
- 1000€ (paid in 3 months) - annual interest rate = 5%;
- 1000€ (paid in 6 months) – annual interest rate = 6%;
- 1000€ (paid in 12 months) - annual interest rate = 8%;
- 1000€ (paid in 24 months) - annual interest rate = 10%.

After they have selected the best option, they need to click the basket to shoot and to see the result. A calculator is available at the options bar located on the right side of the screen.

Some important tips that you can opt to provide to the users can be:

- Remind them that they can use the calculator provided in the toolbar
- Inform them that there is more than one correct option
- Advise them to pay attention that the character can only pay 100 euros/month.

If the users provide an answer that is not correct, a friendly warning message will be displayed, giving the possibility to try again the exercise. What could have been the problem? It is difficult to perceive in advance why a given user as provided a wrong answer...



However, some feedback questions can be formulated so trainers and /or tutors can explore with them what went wrong:

- Did you read carefully the “train your brain” session? Please explain to me the concept of “interest rate”.
- How did you calculate?

On the opposite, if the users provide a correct answer, a “well done” message will be displayed, with the continue option.



When completing the game and selecting the continue option, users will have **access to additional resources** that he/she can consult to learn more about the concept of the credit sale.

### Competences developed in each game

With this game, you will be able of developing in your trainees the following competences:

- To know and understand what an interest rate is
- To learn how to calculate interest rates
- To understand that the best option always needs to have in count our financial situation (example: how much can we pay by the month?).



## FIND THE WAY OUT



\*The mini-game “Find the way out” promotes the understanding of the Value Added Tax (VAT) concept. Upon completion of the mini-game, you will be able to identify the notion of Value Added Tax in a business transaction.

### Description of the objective of the game



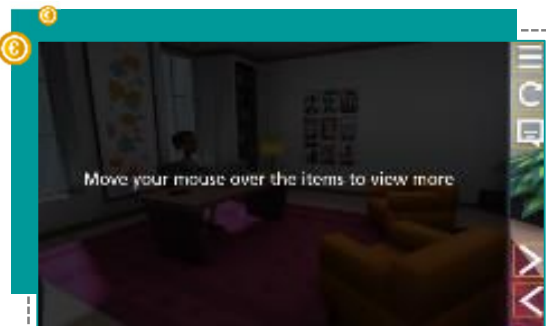
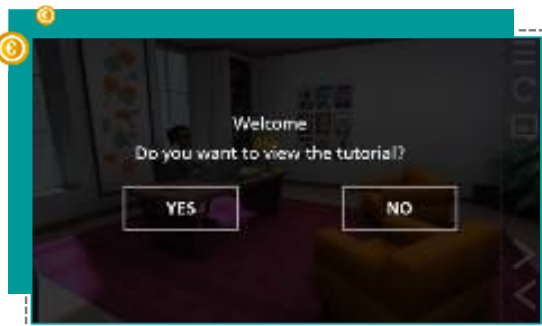
The objective of this game is to explore the concept of Value Added Tax (VAT) with the trainees and make them aware of how different taxes could change the final value of a product or a service.

Furthermore, it draws attention to the fact that VAT rates applied in the Member States European Union are not always the same.

To take responsible financial decisions, when buying goods and services, it is crucial to consider all the variables, namely the VAT rates. This will empower the consumer and will help him to make the best choices for yourself.

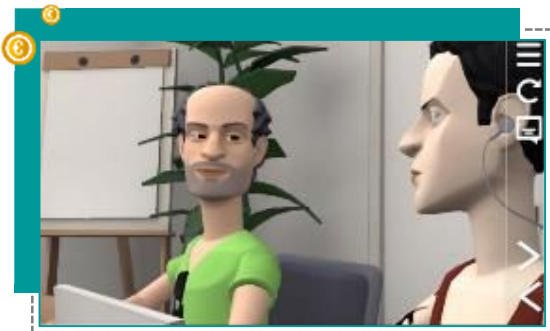
### Explanation of the game process

When starting the game, a **tutorial** is available for the users, aiming to explain how the user can navigate in the game and the toolbar options.



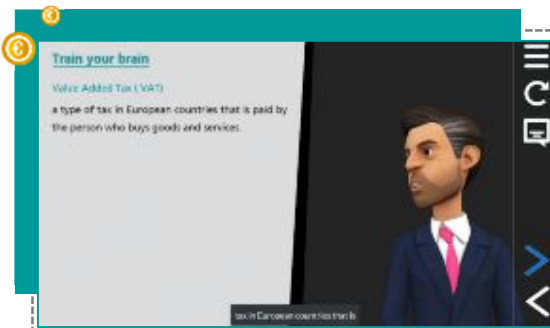


At the beginning of the game, the **game objective** is displayed: “Upon completion of the mini-game you will be able to identify the notion of Value Added Tax (VAT) in a business transaction.” It is important that the trainer and/or tutor is aware of the game objective and he/she can link it with other training contents, subjects, or materials.

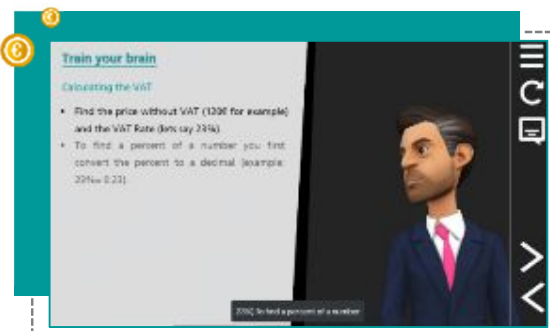


After the presentation of the game objective, the real-based environment is presented to the users, enabling them of understanding the **scenario of the game and the real situation where the concept of Value Added Tax (VAT) will have to be used**. As a trainer and/or tutor, you might need to provide some hints to the users before the game.

Before digging in the real game, the users will have access to the section “**train your brain**”. This section aims to present to the users the concept(s) that the games aim to explore.



In this case, the concept of the Value Added Tax (VAT) is presented. It is important to highlight to the users that they shall pay attention to the information displayed in this section of the game and that to avoid doubts, it is recommended that they assist the section “train your brain” twice.

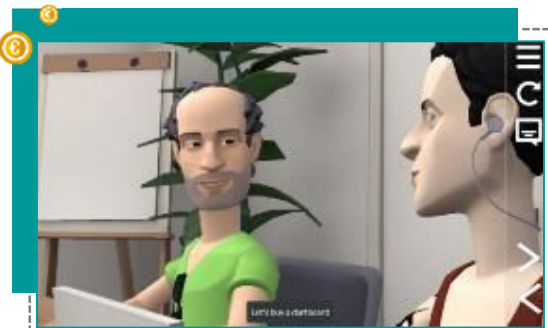


As a trainer and/or tutor you might opt to explore the concepts with your trainees in a training session and so when using the game, users will refresh their memory and understanding of the concept.

On the opposite, you can use the game as a teaser to introduce the concept of VAT and then explore it with all groups in a training session.

Please note that, besides having the chance of learning and understanding the concept, the users can also see an example of how to calculate the VAT (in this case, is calculated the final price for a service costing 120€ with 23% VAT Rate).

It is important to highlight that VAT rates applied in the Member States European Union are not always the same.



Following this introductory section of the game, the users will have access to **playing the game** and to use the explained concepts in a real-life scenario. While the game proceeds some instructions or guiding tips will be displayed to help the users.



As a trainer and/or tutor, you must explore the game as a user, before letting the trainees do it. This will help you to identify any tip or suggestion that you might feel the need to provide them. **In this specific game**, the users will have to simulate the buying of a dartboard, that cost 48€ in Portugal and 50€ in Spain (both without VAT).

The challenge is to find the best price calculating the final price of the dartboards (that have not the VAT included in the price) presenting by too online shops from different countries (Portugal and Spain).

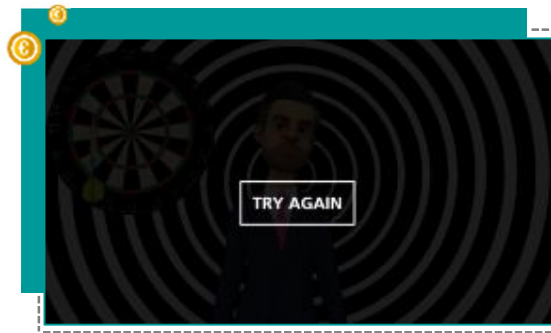
It is important to make sure that the users understand that, for this kind of goods, **in Portugal, the VAT is 23%** and **in Spain it is 21%**.

First of all, the users need to calculate how many are 48€ with a 23% VAT, and how many are 50€ with a 21% VAT. Then, they need to choose the best price. After they have selected the best option, they need to click on the dart and then click on the target to throw it. A calculator is available at the options bar located on the right side of the screen.



If the users provide an answer that is not correct, a friendly warning message will be displayed, giving the possibility to try again the exercise.

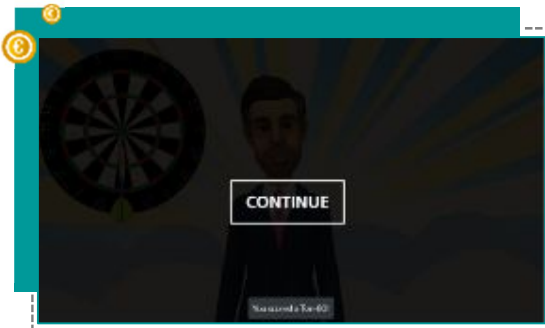
What could have been the problem? It is difficult to perceive in advance why a given user as provided a wrong answer...



However, some feedback questions can be formulated so trainers and /or tutors can explore with them what went wrong:

- Did you read carefully the “train your brain” session? Please explain to me the concept of VAT.
- How did you calculate?

On the opposite, if the users provide a correct answer, a “well done” message will be displayed, with the continue option.



When completing the game with the correct answer, users will have **access to additional resources** that he/she can consult to learn more about the concept of VAT, a VAT calculator and information about how to calculate a VAT, VAT rates, and a list of VAT rates applied in the Member States of the European Union.

### Competences developed in each game

With this game, you will be able of developing in your trainees the following competences:

- To know and understand what Value Added Tax (VAT) is.
- To know that VAT rates diverge depending on the goods and services.
- To know that VAT rates applied in the Member States European Union are not always the same.
- To learn how to calculate VAT rates.

### C. Risk & Credit minigames

#### LET'S DO SOME PROFILING



\* The mini game "Let's do some profiling" introduces the concept of credit and how the bank assesses a credible customer. Credit history is a record of how well or how poorly someone has managed his/her finances over time.\*

#### Description of the objective of the game



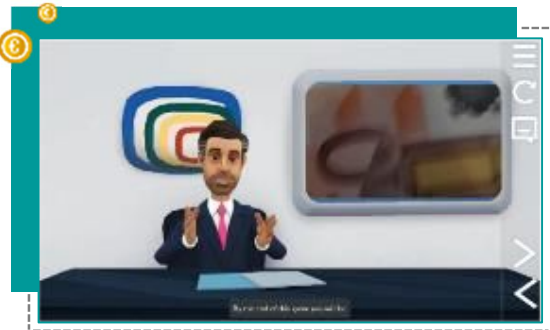
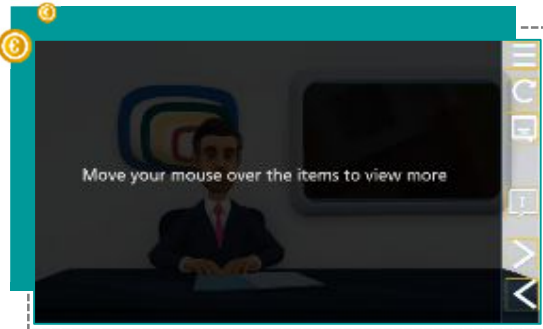
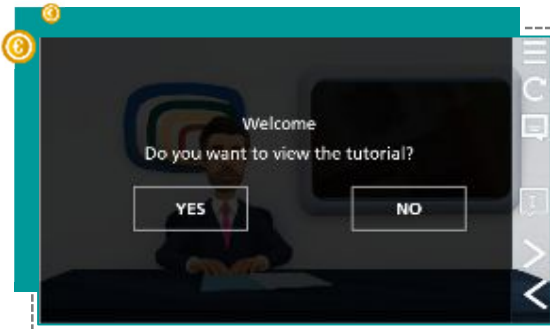
The objective of this game is to provide useful information on the criteria that Banks use in order to assess the creditworthiness of their clients before giving them a loan. In particular, the trainees will be able to understand how their personal financial decisions matter to a bank when considering giving them access to money on a long-term basis.

During the game, you will be able to introduce a set of criteria that a bank needs for assessing if someone is a credible customer, in other words, if the money that it lends will be repaid in time and in full. Such criteria include information about the professional and personal situation, any past financial records and current assets.

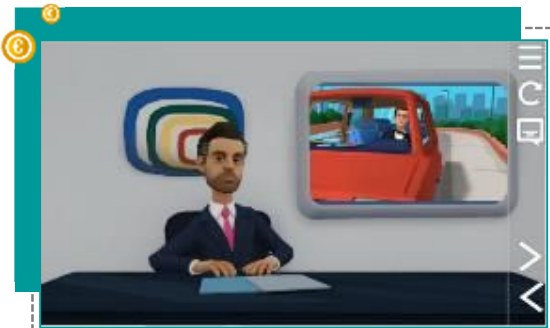
It is very usual throughout a person's lifetime to be circumstances where sound financial decisions will have to be made, e.g. using payment cards, buying a car in installments. In this regard, it is important to allow trainees to become aware of the fact that the way they will be managing their finances over time will impact their credit history which in turn will result in getting new credit with attractive terms.

#### Explanation of the game process

When starting the game, a **tutorial** is available for the users, aiming to explain how the user can navigate in the game and the toolbar options. Users can consult the tutorial to understand how to use the navigation panel before starting the game. This is an option; thus, the trainees can skip it.

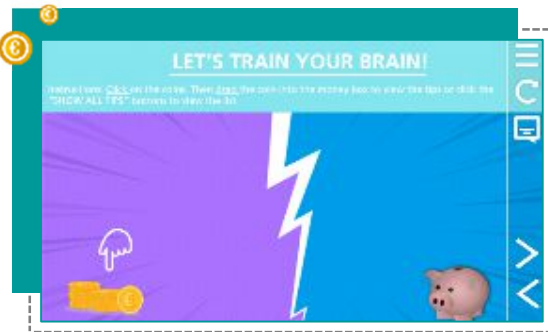


At the beginning of the game, the **game objective** is displayed: “By the end of this game you will be able to understand how your personal financial decisions matter to a bank when considering giving you access to their money on a long-term basis”. It is important that the trainer and/or tutor is aware of the game objective and he/she can link it with other training contents, subjects, or materials.

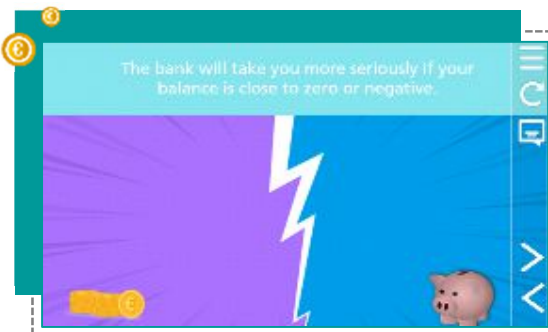


After the presentation of the game objective, the real-based environment is presented to the users, enabling them of understanding the **scenario of the game and the real situation where the concept of credit history will have to be used**. As a trainer and/or tutor, you might need to provide some hints to the users before the game.

Before digging in the real game, the trainees will have access to the section “**train your brain**”.

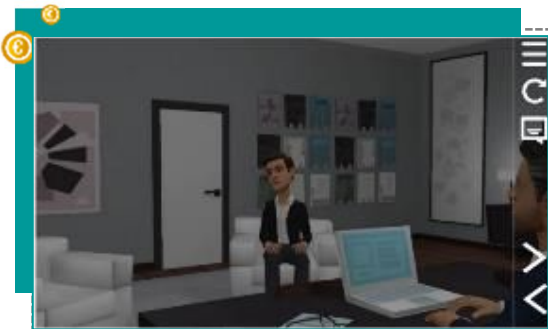


This section aims to present to the users the concept(s) that the games aim to explore. In this case, the concept of credit history and good creditworthiness is presented. It is important to highlight to the users that they shall pay attention to the information displayed in this section of the game and that to avoid doubts, it is recommended that they assist the section “train your brain” twice.



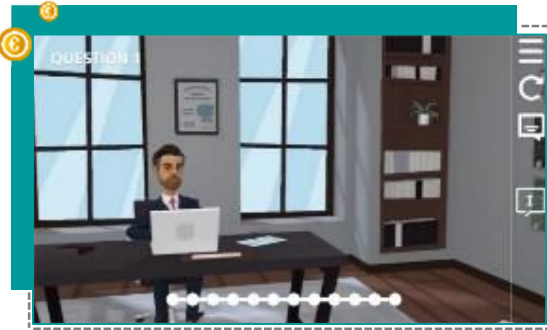
As a trainer and/or tutor you might opt to explore the concepts with your trainees in a training session and so when using the game, users will refresh their memory and understanding of the concept. On the opposite, you can use the game as a teaser to introduce the concept of credit history and then explore it with all groups in a training session.

Please note that, besides having the chance of learning and understanding the concept, the users can also view examples of criteria that the Banks use to assess creditworthiness, including information about the professional and personal situation, past financial records and current assets. It is important for the trainees to understand that a credible customer is more likely to get a loan with more attractive terms.



Following this introductory section of the game, the users will have access to **playing the game** and to use the explained concepts in a real-life scenario. While the game proceeds some instructions or guiding tips will be displayed to help the users.

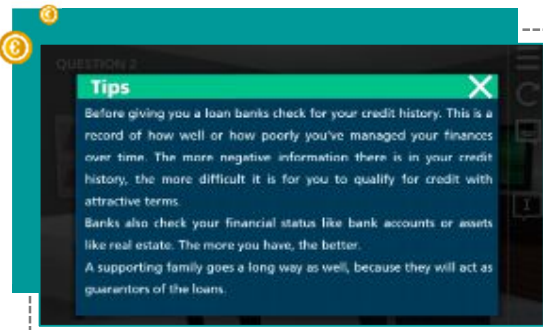
As a trainer and/or tutor, you must explore the game as a user, before letting the trainees do it. This will help you to identify any tip or suggestion that you might feel the need to provide them.



In this specific game, the users will have to simulate visiting a Bank in order to ask for a €10,000 loan. In order for the Bank to proceed with the request, it needs to assess first the creditworthiness of the client. In this scenario, the users of the game will see 12 profiling statements in their screen in the form of a quiz which will be asked by the bank clerk.

For each sentence, the users need to decide if they will have a positive or negative impact on their credit profile.

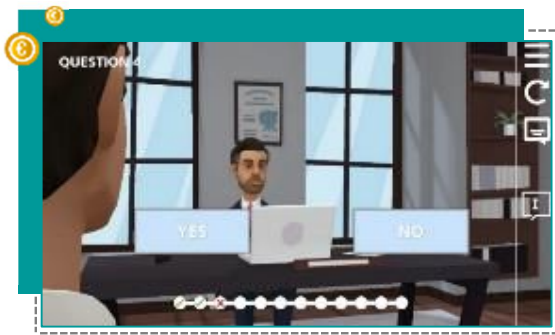
The users have access to a tips button on the left of their screen that explains how Banks check their clients' credit history and what financial actions should a customer takes, in order to get credit with attractive terms.



A progress bar is being displayed at the bottom of the screen to let the users know how many questions they have answered correctly.



At the end of the game, all answers are being displayed as a "Creditworthiness report". If the users fail to answer correctly to at least eight out of twelve questions, a try again message will appear, and the users will be requested to resume the game and re-do the quiz or to visit the Train the Brain section to get more information.



Some important tips that you can opt to provide to the users can be:

- Remind them that they can use the tips section while playing the game;
- Advise them that they need to take into account what they have read in the train the brain section of the game.

What could have been the problem? It is difficult to perceive in advance why a given user as provided a wrong answer... however, some feedback questions can be formulated so trainers and /or tutors can explore with them what went wrong:

- Did you read carefully the “train your brain” session? Please explain to me how the Bank assesses your “credit history”.
- Why did you answer YES/NO to this question?



When answering at least eight questions correctly, users will have **access to additional resources** that they can consult to learn more about the creditworthiness criteria and the credit policy across the EU.


Additionally, they will have the chance to watch a short video about the differences in assessing creditworthiness between the banking system in Europe and the USA.

### Competences developed in each game

With this game, your trainees will be able to develop the following competences:

- To understand the concept of credit history and why it is important;
- To distinguish between positive and negative criteria for creditworthiness;
- To recognize what financial actions, need to be undertaken in order to build a good credit profile before applying for a loan at a Bank.

## THE ESSENCE OF INTEREST RATES



\* The mini-game 2 "The essence of interest rates" presents the concept of interest rate and allows you to calculate the amount of interest you will end up paying for your financial decisions. Interest rate can be referred to as the cost of borrowing money. \*

### Description of the objective of the game



The objective of this game is to help trainees become familiar with the concept of Interest Rates in order to make financial decisions both on a personal and/or a business level. In particular, the trainees will be able to make calculations for the amount of interest they will end up paying on particular occasions.

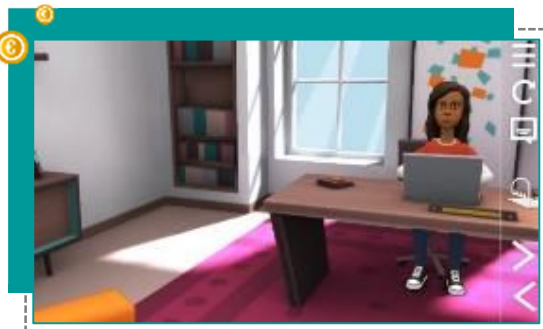
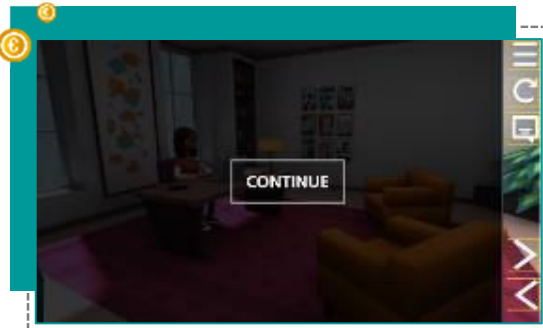
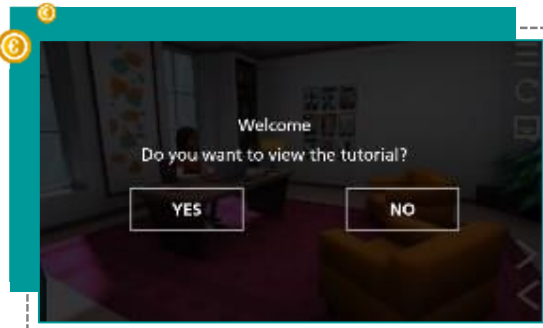
In parallel they will also gain an insight on the way interest rate can affect the direction of the economy (consumption, savings, investment, borrowing).

During the game, you will be able to introduce the concept of interest rate by explaining when and how the interest rates increase or decrease over time and which are the implications of such situations for the financial decisions someone should make when considering buying options or other financial decisions.

It is very usual for consumers to experience periods when the interest rates increase or decrease depending on the state of the economy. In this regard, it is important for trainees to become aware of the fact that Interest rates are one of the most important factors that people look into when making a financial decision.

## Explanation of the game process

When starting the game, a **tutorial** is available for the users, aiming to explain how the user can navigate in the game and the toolbar options. Users can consult the tutorial to understand how to use the navigation panel before starting the game. This is an option; thus, the trainees can skip it.



At the beginning of the game, the **game objective** is displayed: "By the end of this game you will become familiar with the concept of Interest Rates in order to be able to make financial decisions both on a personal and/or a business level". It is important that the trainer and/or tutor is aware of the game objective and he/she can link it with other training contents, subjects, or materials.

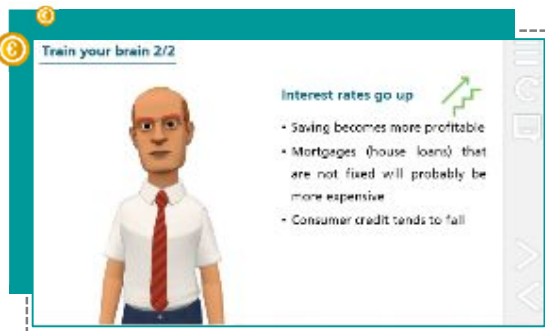


After the presentation of the game objective, the real-based environment is presented to the users, enabling them of understanding the **scenario of the game and the real situation where the concept of interest rates will have to be used**. As a trainer and/or tutor, you might need to provide some hints to the users before the game.

Before digging in the real game, the trainees will have access to the section "**train your brain**".



This section aims to present to the users the concept(s) that the games aim to explore. In this case, the concept of the interest rates is presented. It is important to highlight to the users that they shall pay attention to the information displayed in this section of the game and that to avoid doubts, it is recommended that they assist the section “train your brain” twice.

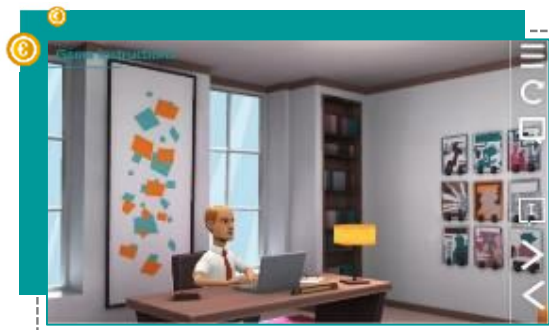


As a trainer and/or tutor you might opt to explore the concepts with your trainees in a training session and so when using the game, users will refresh their memory and understanding of the concept. On the opposite, you can use the game as a teaser to introduce the concept of credit history and then explore it with all groups in a training session.

Please note that, besides having the chance of learning and understanding the concept, the users can also view examples of the financial decisions that are affected when interest rates go up. It is important for the trainees to understand that low money circulation would increase the cost of borrowing money while high money circulation would result in a decreases in interest rates.

Following this introductory section of the game, the users will have access to **playing the game** and to use the explained concepts in a real-life scenario. While the game proceeds some instructions or guiding tips will be displayed to help the users.

As a trainer and/or tutor, you must explore the game as a user, before letting the trainees do it.



This will help you to identify any tip or suggestion that you might feel the need to provide them.



In this specific game, the users will have to simulate the decision making processes of a young journalist that wants to build a house and buy a car and in general to improve his lifestyle. The player will have to help him select whether or not he would take into consideration the interest rates during particular financial decisions.

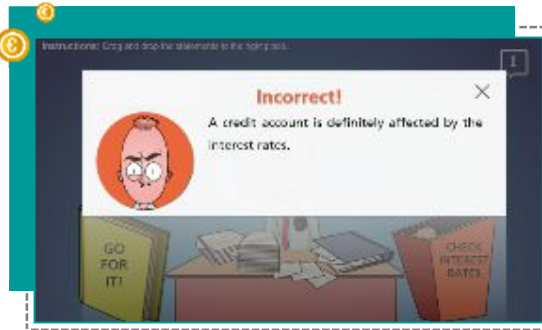
In particular, the users of the game will be offered six different situations and they will have to select if they will consider or not the interest rates for each situation. In order to achieve this, the players will have to check which of their financial decisions will be affected by interest rates and which will not. The situations are the following:

- Buying an apartment for 100 000 euros {mortgage}.
- Getting a loan to buy two cars, for the journalist and his wife.
- Buying a high-end TV with installments.
- Applying for a line of credit from the bank (i.e request a loan).
- Depositing all the savings into a bank deposit account.
- Investing some of the family money in the stock exchange.

The users have access to a tips button on the left of their screen that explains when interest rates increase or decrease and what happens when the interest rates go high.



If the users fail in selecting the correct option, they will be receiving a feedback message which will explain why the answer is wrong. After closing the feedback message, the players can continue to the next scene. However, if they provide wrong answers to more than three scenarios, they will fail to complete the game. If this happens, users will be requested to start over or to visit the Train your Brain section to get more information.

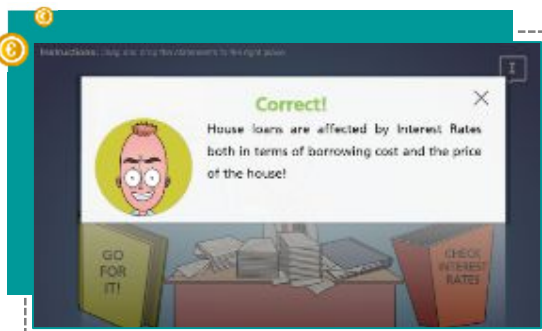


Some important tips that you can opt to provide to the users can be:

- Remind them that they can use the tips section while playing the game;
- Advise them that they need to take into account what they have read in the train the brain section of the game.

What could have been the problem? It is difficult to perceive in advance why a given user as provided a wrong answer... however, some feedback questions can be formulated so trainers and /or tutors can explore with them what went wrong:

- Did you read carefully the “train your brain” session? Please explain to me the concept of “interest rate”.
- What does money circulation mean and how it affects interest rates?
- What happens when interest rates go up? Which financial decisions might need to be taken into consideration?



**If the users provide a correct answer**, a feedback message will be displayed confirming that the player has provided the preferred answer. After closing the feedback message, the player automatically moves to the next scene.



When completing the game by providing at least 4 correct responses, users will have **access to additional resources** that he/she can consult to learn more about the concept of the interest rates, when they go up and down and how interest rates might influence the financial decisions of an individual.

### Competences developed in each game

With this game, your trainees will be able to develop the following competences:

- To understand the concept of interest rate;
- To distinguish between low money circulation and high money circulation and how they affect interest rates;
- To recognize the financial situations for which the interest rates must definitely be checked.



## INTEREST RATES AND THE MAGIC OF COMPOUNDING

\* The mini-game 3 "Interest rate and the magic of compounding" explores the concepts of simple and compound interest rates and their different impacts on the finances. \*

### Description of the objective of the game



The objective of this game is to explore the concepts of simple and compound interest rates. In particular, it will help your trainees to distinguish between simple and compound interest and how to calculate their amounts on different occasions.

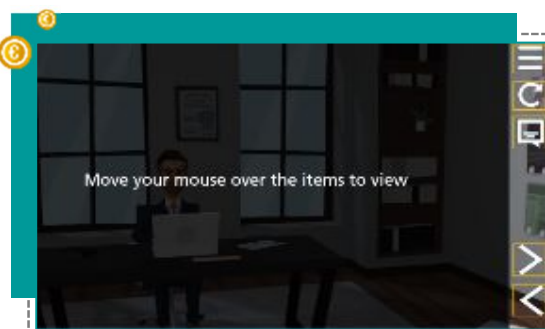
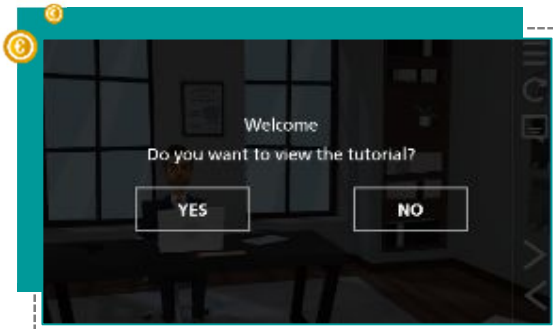
It is very usual for people to want to know the way banks calculate interest on their savings as such calculations determine how fast their savings will grow.

In this regard, it is important for your trainees to know the arithmetic and geometric progression which are used to calculate the simple interest rate and the compound interest rate respectively.

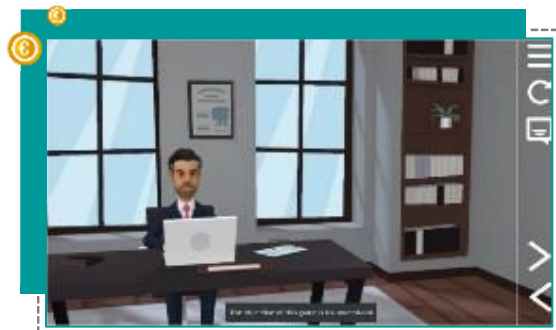
It is important to sensitize the trainees to the fact that compound interest although it may take some time to work, makes their pile bigger.

### Explanation of the game process

When starting the game, a **tutorial** is available for the users, aiming to explain how the user can navigate in the game and the toolbar options. Users can consult the tutorial to understand how to use the navigation panel before starting the game. This is an option; thus, the trainees can skip it.



At the beginning of the game, the **game objective** is displayed: “By the end of this game you will be able to understand the difference between simple and compound interest loans and how if you extend them well into the future, they produce very different outcomes”.

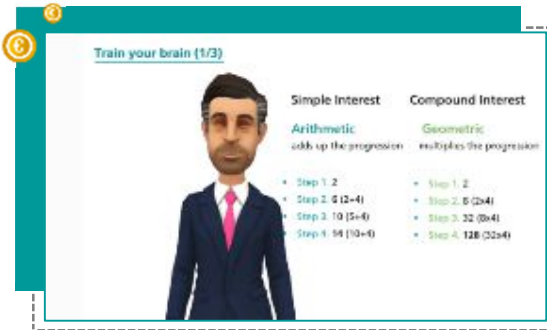


It is important that the trainer and/or tutor is aware of the game objective and he/she can link it with other training contents, subjects, or materials.



After the presentation of the game objective, the real-based environment is presented to the users, enabling them of understanding the **scenario of the game and the real situation where the concepts of simple and compound interest rates will have to be used**. As a trainer and/or tutor, you might need to provide some hints to the users before the game.

Before digging in the real game, the trainees will have access to the section “**train your brain**”. This section aims to present to the users the concept(s) that the games aim to explore.



In this case, the difference between the concept of simple and compound interest rates is presented. It is important to highlight to the users that they shall pay attention to the information displayed in this section of the game and that to avoid doubts, it is recommended that they assist the section “train your brain” twice.

As a trainer and/or tutor you might opt to explore the concepts with your trainees in a training session and so when using the game, users will refresh their memory and understanding of the concept. On the opposite, you can use the game as a teaser to introduce the concepts of simple and compound interest rates and then explore it with all groups in a training session.



Please note that, besides having the chance of learning and understanding the concepts, the users can also view how to calculate both the simple and the compound interest rate. It is important for the trainees to understand that the massive difference between simple and compound interest is illustrated by the difference between arithmetic and geometric progression in mathematics. While both start quite close in the first two steps, they get separated by a massive amount very quickly.



Following this introductory section of the game, the users will have access to **playing the game** and to use the explained concepts in a real-life scenario. While the game proceeds some instructions or guiding tips will be displayed to help the users.

As a trainer and/or tutor, you must explore the game as a user, before letting the trainees do it. This will help you to identify any tip or suggestion that you might feel the need to provide them.

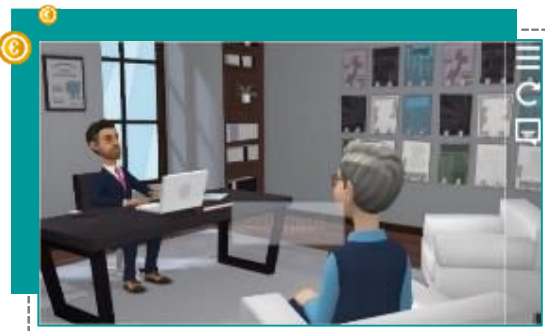


In this specific game, the users will have to simulate the calculation of the compound interest rate each of the three scenarios that are being presented. In particular, the users of the game will be offered three different situations and they will have to calculate the final amount that includes the principle and the interest rate in every situation.

In order to achieve this, the players will have to use an online calculator that is available in the game. The situations are the following:

- A 15-year-old who got a summer job that put the earned cash on a fixed deposit account with 5% yearly interest rate;
- A 35-year-old who applied for a 3-year loan from the bank that comes at 4% interest rate per year in order to buy his dream house;
- A grant parent who has opened an account in the bank for his/her granddaughter and placed 10,000 Euros for which the compound interest is set at 3%.

If the users fail in selecting the correct option, they will receive a feedback message which will state that the answer is wrong. After the feedback message, the players can continue to the next scene. However, if they provide wrong answers to more than one scenario, they will fail to complete the game. If this happens, users will be requested to start over or to visit the Train your Brain section to get more information.



Some important tips that you can opt to provide to the users can be:

- Remind them that they can use the tips section while playing the game;
- Advise them that they need to take into account what they have read in the train the brain section of the game.
- Remind them that the interest rate is calculated based on arithmetic progression while the compound interest is calculated based on geometric progression.

What could have been the problem? It is difficult to perceive in advance why a given user as provided a wrong answer... however, some feedback questions can be formulated so trainers and /or tutors can explore with them what went wrong:



- Did you read carefully the “train your brain” session? Please explain to me the concepts of “simple and compound interest rate”.
- How did you calculate the simple interest rate?
- How did you calculate the compound interest rate?



If the users provide a correct answer, a feedback message is heard “You choose wisely” confirming that the player has provided the preferred answer. Then, the player automatically moves to the next scenario by clicking on the “Continue” button.




When completing the game by providing at least 2 correct responses, users will have **access to additional resources** that they can consult to learn more about the concepts of simple and compound interest rates, tips on how to calculate them and how they work in real life.

### Competences developed in each game

With this game, your trainees will be able to develop the following competences:

- To understand the concepts of simple and compound interest rates;
- To recognize the differences between simple and compound interest rate;
- To calculate the amount of simple and compound interest rates correctly.

## TYPES OF PERSONAL ACCOUNTS



\* The mini-game 4 "Types of personal accounts" explores the different types of credit available through a Bank. These include: secure vs unsecured loans, credit cards vs debit cards. \*

### Description of the objective of the game

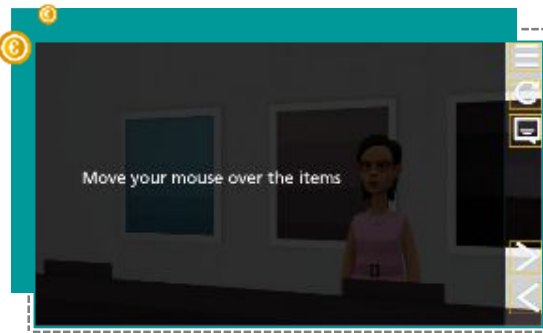
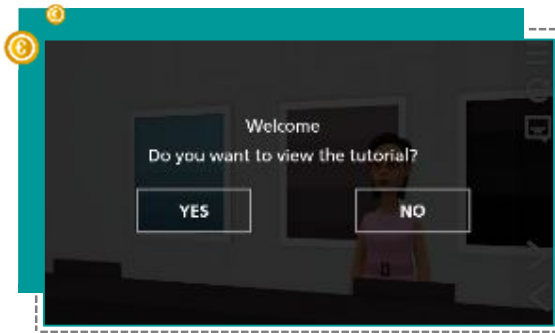


The objective of this game is to explore the concept of credit. In particular, it will help you to distinguish between secured and unsecured loans, and between credit and debit cards in order for you to understand when to use each of them.

It is very usual for people to want to know the different types of credit available to them through the local bank and which is the best credit solution that matches their financial needs. You must be aware of the different types of personal accounts you can request from a Bank according to the type of loan that best suits them.

### Explanation of the game process

When starting the game, a **tutorial** is available for you, aiming to explain how you can navigate in the game and the toolbar options. You can consult the tutorial to understand how to use the navigation panel before starting the game. This is an option; thus, you can skip it.



At the beginning of the game, the **game objective** is displayed: “By the end of this game you will be able to match the type of financial needs you have to the type of loan that is best suited for you”. Think if you have heard about this anywhere or if you have ever experienced or someone you know has experienced the need to ask for credit from a Bank.



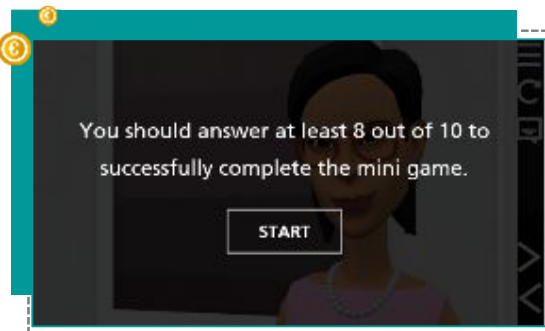
After the presentation of the game objective, you will be introduced to the real-based environment to understand the **scenario of the game and the real situation where the concept of credit will have to be used**. We hope that the scenario presents to you a useful situation!

Before initiating the game, you can access the section “**train your brain**”. This section presents you with the concept(s) that the game will explore. In this case, the types of credit are being presented, so please pay attention to it! Probably you have already heard about the concepts that are presented to you on a training course? At school? Through a friend or relative? Even if you are familiar with it, you can read it more than once to make sure that you can proceed with no doubts.





Please note that, besides having the chance of learning and understanding the concept, you can also the different types of credit and to which situations it is more appropriate for each one to be considered. It is important for you to understand the differences between secured vs unsecured loans and the differences between credit and debit cards.



Following this introductory section of the game, the users will have access to **playing the game** and to use the explained concepts in a real-life scenario. While the game proceeds some instructions or guiding tips will be displayed to help the users.

As a trainer and/or tutor, you must explore the game as a user, before letting the trainees do it. This will help you to identify any tip or suggestion that you might feel the need to provide them.

In this specific game, the users will have to simulate the decision-making process that includes the selection of the best possible credit solution given to a particular financial need. Specifically, the users of the game will be presented to ten different financial needs and they will decide which is the best type of credit that can be applied to meet each need by selecting one of the four options: secured loan, unsecured loan, debit cards, and credit cards.

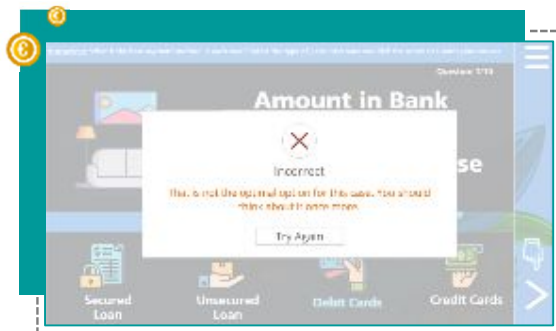


In order to achieve this, the players will have to decide the type of credit that best meets each of the following financial needs:

- Buy a car;
- Buy groceries from the local supermarket;
- Advanced rent payment for an apartment;
- Tickets for summer vacations;
- Unexpected necessary can expenses;
- Internet, phone, water and electricity standing orders;

- Gym membership paid monthly;
- Buy a new TV;
- Student loan.

If the users fail in selecting the correct option, they will be given a feedback message which will state that the answer they provided is not an optimal option. At this point, they get another chance of answering correctly by selecting the “Try Again” option. However, they won’t get a third chance. If users provide wrong answers to more than two cases, they will fail to complete the game. If this happens, users will be requested to start over or to visit the Train your Brain section to get more information.

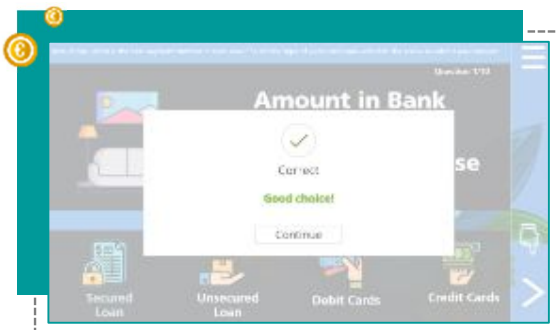


Some important tips that you can opt to provide to the users can be:

- Remind them that they can use the tips section while playing the game;
- Advise them that they need to take into account what they have read in the train the brain section of the game.

What could have been the problem? It is difficult to perceive in advance why a given user as provided a wrong answer... however, some feedback questions can be formulated so trainers and /or tutors can explore with them what went wrong:

- Did you read carefully the “train your brain” session? Please explain to me the concepts of credit.
- Why did you choose this option?
- What is the difference between secured and unsecured loans and credit vs debit cards?



**If the users provide a correct answer**, a feedback message is displayed “Good choice” confirming that the player has provided the preferred answer. Then, the player automatically moves to the next case by clicking on the “Continue” button.



## DO I USE THE DEBIT CARD, OR IS THE CREDIT CARD... WHAT IS THE DIFFERENCE EVEN?

\* The mini-game 5 "Do I use the debit card, or the credit card ... and what is the difference?" explores the differences between debit and credit cards. It provides information on how to select the correct method of payment to the best effect of its qualities. \*

### Description of the objective of the game

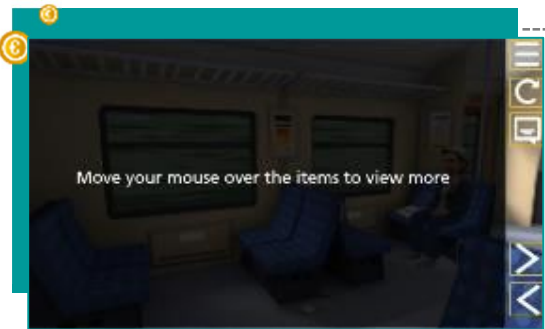
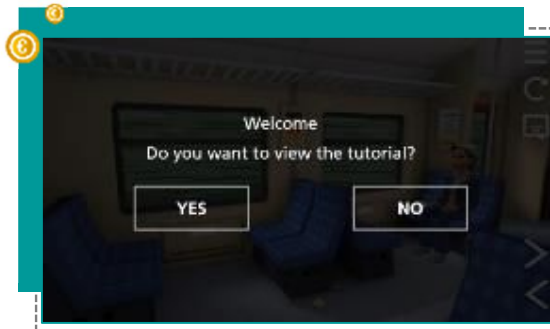


The objective of this game is to explore the differences between credit cards and debit cards. In particular, it will help your trainees to be in a better position to select which of these two financial tools best suits their financial needs by taking into advantage the best effect of their qualities.

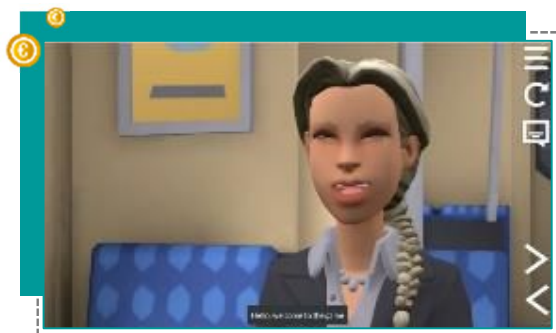
It is very usual for people to not use cash when they visit stores, or other places when they are requested to pay (e.g. hotels, restaurants, travel agencies). In particular, more and more people have bank accounts and bank cards which have become more and more normal for even the smallest daily transactions. In this regard, it is important to sensitize the trainees to the different types of cards (credit and debit cards) and their differences when conducting transactions.

### Explanation of the game process

When starting the game, a **tutorial** is available for the users, aiming to explain how the user can navigate in the game and the toolbar options. Users can consult the tutorial to understand how to use the navigation panel before starting the game. This is an option; thus, the trainees can skip it.



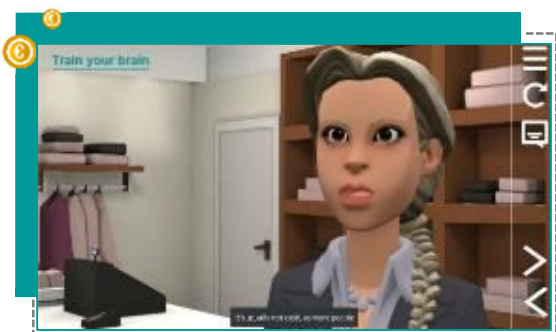
At the beginning of the game, the **game objective** is displayed: “By the end of this game you will be able to distinguish between the debit and credit cards in order to use these financial tools to the best effect of their qualities”. It is important that the trainer and/or tutor is aware of the game objective and he/she can link it with other training contents, subjects, or materials.



After the presentation of the game objective, the real-based environment is presented to the users, enabling them of understanding the **scenario of the game and the real situation where the concepts of credit and debit cards will have to be used**. As a trainer and/or tutor, you might need to provide some hints to the users before the game.

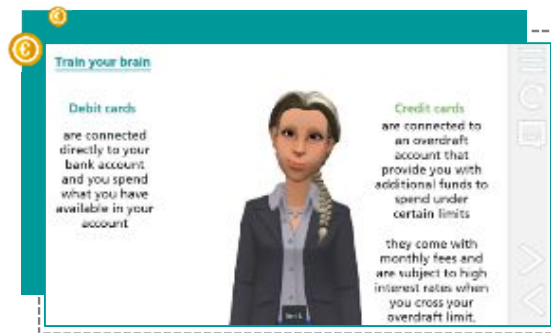
Before digging in the real game, the trainees will have access to the section “**train your brain**”.

This section aims to present to the users the concept(s) that the games aim to explore. In this case, the differences between credit and debit cards are being presented. It is important to highlight to the users that they shall pay attention to the information displayed in this section of the game and that to avoid doubts, it is recommended that they assist the section “train your brain” twice.





As a trainer and/or tutor you might opt to explore the concepts with your trainees in a training session and so when using the game, users will refresh their memory and understanding of the concept.



On the opposite, you can use the game as a teaser to introduce the concept of credit cards and then explore it with all groups in a training session. Please note that, besides having the chance of learning and understanding the concept, the users can also view examples of the different types of credit cards and to which situations it is more appropriate for each one to be considered.



Following this introductory section of the game, the users will have access to **playing the game** and to use the explained concepts in a real-life scenario. While the game proceeds some instructions or guiding tips will be displayed to help the users.

As a trainer and/or tutor, you must explore the game as a user, before letting the trainees do it. This will help you to identify any tip or suggestion that you might feel the need to provide them. **In this specific game**, the users will have to simulate the decision-making process that includes the selection of the best possible credit card solution given to a particular financial need.



Specifically, they will be presented to four different financial needs and they will have to decide which is the best type of credit card that can be used to meet each need by selecting one of the two options: debit card and credit card. In order to achieve this, users will have to decide the type of credit that best meets each of the following financial needs:

- Broken lap-top;
- Shopping expenses;
- Organizing a trip;
- Birthday celebration;



The users have access to a Tips section at the right-side panel that explains in detail to which situations they can use either credit or debit cards.

If the users fail in selecting the correct option, they will receive a feedback message which will state why the answer they provided is not correct. If they provide a wrong answer to at least one case, they will fail to complete the game. If this happens, users will be requested to start over or to visit the Train your Brain section to get more information.



Some important tips that you can opt to provide to the users can be:

- Remind them that they can use the tips section while playing the game;
- Advise them that they need to take into account what they have read in the train the brain section of the game.

What could have been the problem? It is difficult to perceive in advance why a given user as provided a wrong answer... however, some feedback questions can be formulated so trainers and /or tutors can explore with them what went wrong:

- Did you read carefully the “train your brain” session? Please explain to me the concepts of credit.
- Why did you choose this option?
- What is the difference between credit and debit cards?



If the users provide a correct answer, a feedback message is heard confirming that they have provided the preferred answer. Then, they automatically move to the next case by clicking on the “Continue” button.

When completing the game, users will have **access to additional resources** that they can consult to learn more about the concept of credit, and the types of personal and consumer loans.



### Competences developed in each game

With this game, your trainees will be able to develop the following competences:

- To understand the concept of credit cards;
- To recognize the differences between credit cards and debit cards;
- To select the best credit card solution depending upon your financial needs.

## 3. Using the EUROINVESTMENT Game in Training

### 3.1. Formal Training

#### A. Portugal

Under the national plan for financial literacy, one of the key objectives is to recognize the importance of financial inclusion and training, to define the general guiding principles for its promotion and frames and supports the implementation of initiatives at the national level. The Plan is a medium- and long-term project, in which the guidelines defined for 2016-2020 continue and reinforce the strategy pursued in the first five years of implementation, between 2011 and 2015. The Plan has an integrated and coordinated vision of financial education initiatives, recognizing that improving knowledge and influencing people's attitudes and behaviours in this area are only possible with the involvement of a wide range of partners. The partnerships established with ministries and public bodies, business and financial sector associations, consumer associations, union centers and universities allow the adaptation of financial education to the needs of specific target audiences and provide the necessary territorial capillarity.

One of the initiatives designed is the **Core Competencies for Financial Education (CCFE)**, an **education and training framework for financial education**, that contains guidelines for kindergarten, basic education, secondary education and adult education. Financial Education is recognized as one of the Citizenship Education subjects, cutting across the curriculum. The CCFE may be used by teachers working in any curricular or extracurricular subject, at all teaching levels and types. They can be used in very diverse contexts, in their entirety or partially, as part of Citizenship Education, as part of the development of projects and initiatives that contribute to personal and social student training or as part of the range of complementary curricular components in the 2nd and 3rd stages of basic education.

In what it comes to **adult education**, given that the CCFE promotes key, cross-cutting citizenship knowledge and skills in the financial area, a set of **Short-Term Training Units (STTU)** was created to implement them within adult learning and training. The STTU are based on topics, subtopics and goals defined in the CCFE and they are integrated into the National Catalogue of Qualifications (NCQ), as a "Financial Education programme". These Financial Education STTU are not included in any training core competencies associated with a given qualification, and maybe developed within a specific training programme.

There are 6 STTU:

- Household budget planning and management
- Basic financial products
- Savings – Basic concepts
- Credit and indebtedness
- Financial system
- Savings and investment of savings

The EUROINVESTMENT minigames can be used in the different SSTU as follows:

		STTU - Short-Term Training Units					
		Household budget planning and management	Basic financial products	Savings – Basic concepts	Credit and indebtedness	Financial system	Savings and investment of savings
Games		Topics					
Planning & Management	Your Financial Check-Up	Definition of Budget Short term Vs. Long term needs Balance Budget Priorities Unexpected situations that affect household income Emergency fund included in the budget Medium- and long-term objectives		Budget Priorities			
	Make ends Meet	Definition of Budget Sources of Income Expenditure made with household income Budget Necessary Vs Superfluous expenses Fixed Vs. Variable expenses Optional Vs. Variable expenses Balance Budget Priorities		Budget Priorities Goals and precautions against a risk Investment of savings			Goals and precautions against a risk Investment of savings
	Rainy days	Necessary Vs Superfluous expenses Unexpected situations that affect household income Emergency fund included in the budget					
	Nest Eggs	Definition of Budget Fixed Vs. Variable expenses Optional Vs. Variable expenses Balance Budget Priorities Unexpected situations that affect household income Medium- and long-term objectives Multiyear budgeting	Cost of credit	Budget Priorities	Cost of credit	Cost of credit	
	Retirement clock	Necessary Vs Superfluous expenses Budget	Purposes of borrowing	Budget Priorities Investment of savings	Purposes of borrowing		Investment of savings

		Priorities					
--	--	------------	--	--	--	--	--

		STTU - Short-Term Training Units					
		Household budget planning and management	Basic financial products	Savings – Basic concepts	Credit and indebtedness	Financial system	Savings and investment of savings
Games		Topics					
Money & Transactions	Choose and Play	Banknotes and coins				Official currency Exchange rate The Eurosystem	
	Let's Exchange	Banknotes and coins Budget				Official currency Exchange rate The Eurosystem	
	Score a goal	Expenditure made with household income Budget					
	Play with interests		Cost of the credit Purposes of borrowing	Interest rate	Interest rate Payment and receipt of interest Cost of the credit Purposes of borrowing	Cost of the credit	
	Find the way out						

		STTU - Short-Term Training Units					
		Household budget planning and management	Basic financial products	Savings – Basic concepts	Credit and indebtedness	Financial system	Savings and investment of savings
Games		Topics					
Risk & Credit	Let's do some profiling		Bank loan Financial needs and capabilities when borrowing Costs of credit		Bank loan Financial needs and capabilities when borrowing Costs of credit Responsibilities to repay credit List of credit responsibilities	Bank loan The Eurosystem Costs of credit	
	The essence of interest rates		Costs of credit Fixed Vs Variable interest rates	Interest rate	Interest rate Costs of credit Fixed Vs Variable interest rates	The Eurosystem Role of banks Interest rate Costs of credit Fixed Vs Variable interest rates	Interest rate
	Interest rate and the magic of compounding		Costs of credit Financial needs and capabilities when borrowing	Interest rate	Financial needs and capabilities when borrowing Interest rate Payment and receipt of interest Costs of credit Other loan charges	Interest rate Costs of credit	Interest rate

			Other loan charges				
Types of personal accounts	Debit cards Credit cards Demand deposit account	Debit cards Credit cards Demand deposit account Bank loan			Bank loan	Bank loan	
Do I use the debit card, or is the credit card ... what is the difference even?	Means of payment and inherent costs Debit cards Credit cards	Debit cards Credit cards					

## B. Spain

Since 2008, Financial Education has been part of the national curriculum for children and youngsters. The Banco de España (BdE) and the CNMV (National Securities Market Commission), together with the Government, launched the Financial Education Plan 2008-2012, which was renewed in June 2013 (Financial Education Plan 2013-2017) and in June 2018 (Financial Education Plan 2018 -2021). This Plan follows the recommendations of the European Commission and the High-Level Principles on National Strategies for Financial Education, defined by the International Network for Financial Education (INFE) of the Organization for Economic Cooperation and Development (OECD) and endorsed by its time for the G-20 at the summit held in Los Cabos (Mexico) in June 2012.

The objectives of the Financial Education Plan cover all citizens, at any stage of their life:

- Children: makes them understand the value of money and savings.
- Youngsters: prepares them to live tomorrow independently.
- Adults: helps them plan basic decisions such as buying a home, maintaining a family, financing children's studies or planning for retirement.

However, the optional nature of the subjects in which this plan has been implemented, means that the financial education contents, although incorporated in secondary school, are not present universally for all students (depending on the branch of studies they choose).

In Spanish Secondary Education, the curriculum integrates most of the financial literacy content (content on personal finance) in a last course's subject (the 4<sup>th</sup> one) which is not compulsory for all students.

The EUROINVESTMENT minigames offer financial education materials that can be used as additional material for the school curriculum, especially in those courses adapted to secondary education for adults.

It consists of six parts: 1) Basic economic ideas; 2) Economy and Business; 3) Personal economy; 4) State economy and income and expenses; 5) Economy and interest rates, inflation and unemployment; 6) International economy.

Inside the third block (Personal Economy) we can find 8 content blocks:



- Income and expenses. Identification and control.
- Budget management. Goals and priorities
- Savings and indebtedness. Pension plans
- Risk and diversification
- Planning for the future. Economic needs in life stages
- Money. Bank relations. Debit and credit cards.
- Implications of financial contracts.
- Insurance as a means of risk coverage

The Euroinvestment games can be used in the different content blocks as follows:

		Content Blocks of Personal Economy							
		Income and expenses. Identification and control.	Budget management. Goals and priorities	Savings and indebtedness. Pension plans	Risk and diversification	Planning for the future. Economic needs in life stages	Money. Bank relations. Debit and credit cards.	Implications of financial contracts.	Insurance as a means of risk coverage
Games		Topics							
Money & Transactions	Choose and Play				Exchange rate Currencies.		Official currency. Exchange rate. The Eurosystem. Banknotes and coins.		
	Let's Exchange		Budget.		Exchange rate. Currencies.		Official currency. Exchange rate. The Eurosystem. Banknotes and coins.		
	Score a goal	Expenditure made with household income.	Budget.					Discounts.	
	Play with interests				Interest rate.	Cost of the credit. Purposes of borrowing.		Interest rate. Payment and receipt of interest. Cost of the credit. Purposes of borrowing	
	Find the way out				VAT rates.		VAT rates.	VAT rates.	



		Content Blocks of Personal Economy							
		Income and expenses. Identification and control.	Budget management. Goals and priorities	Savings and indebtedness. Pension plans	Risk and diversification	Planning for the future. Economic needs in life stages	Money. Bank relations. Debit and credit cards.	Implications of financial contracts.	Insurance as a means of risk coverage
Games		Topics							
Planning & Managing	Your Financial Check-up		Definition of Budget. Balance Budget. Priorities. Unexpected situations that affect household income.	Emergency fund included in the budget.		Short term Vs. Long term needs. Medium- and long-term objectives.			
	Make ends meet	Expenditure made with household income. Sources of Income. Necessary Vs Superfluous expenses. Fixed Vs. Variable expenses. Optional Vs. Variable expenses.	Definition of Budget. Budget Balance. Budget Priorities.			Goals and precautions against a risk. Investment of savings.			
	Rainy Days	Necessary Vs Superfluous expenses.	Unexpected situations that affect household income.	Emergency fund included in the budget.					
	Nest Eggs	Fixed Vs. Variable expenses. Optional Vs. Variable expenses. Priorities.	Balance Budget. Definition of Budget. Budget Priorities. Unexpected situations that affect household income. Multiyear budgeting.		Cost of credit.	Medium- and long-term objectives.			
	Retirement Clock	Necessary Vs Superfluous expenses. Budget Priorities.		Purposes of borrowing.		Budget Priorities. Investment of savings.			

Content Blocks of Personal Economy									
		Income and expenses. Identification and control.	Budget management. Goals and priorities	Savings and indebtedness. Pension plans	Risk and diversification	Planning for the future. Economic needs in life stages	Money. Bank relations. Debit and credit cards.	Implications of financial contracts.	Insurance as a means of risk coverage
Games		Topics							
Risk & Credit	Let's do some profiling				Costs of credit. Bank loan.	Financial needs and capabilities when borrowing.		Bank loan. Responsibilities to repay credit. List of credit responsibilities.	
	The essence of interest rates				Interest rate. Costs of credit. Fixed Vs Variable interest rates.		The Eurosystem Role of banks.	Interest rate.	
	Interest rate and the magic of compounding				Interest rate. Costs of credit.	Financial needs and capabilities when borrowing.		Interest rate. Costs of credit. Payment and receipt of interest.	
	Types of personal accounts				Bank loan.		Debit cards. Credit cards.	Demand deposit account. Bank loan.	
	Do I use the debit card, or is the credit card ... what is the difference even?						Means of payment and inherent costs. Debit cards. Credit cards.		

### C. Cyprus

Financial educational activities in Europe vary across countries. In Cyprus, financial education is not a compulsory part of the school curriculum; additionally, there is not a National Competence Framework on Financial Literacy. School students are educated about basic economic concepts through non-formal training. The EUROINVESTMENT Game offers financial literacy material that can be used to support such type of training. Specifically, it can be used as a supplementary/additional course material to the school curricula.

In particular, in school education, the EUROINVESTMENT Game can be used in courses related to financial literacy in Upper Secondary Education in order to develop the ability of young people to properly manage a personal budget and be acquainted with various financial terms such as credit and debit cards, currency exchange, discounting calculations etc. Such financial terms may already sound familiar to young people, but it is essential to know how to make the best use out of them through autonomous choices.



In detail, in Lyceum there is a group of orientation courses about Mathematics and Finance. The Mathematics course aims to help students develop a set of skills and abilities needed to address the needs of the market and everyday reality, namely: creativity, critical thinking and reflection, theoretical thinking and the ability to transform theory to practice, analytical and synthetic thinking, collaboration and information exchange, the ability to solve problems through the search for alternatives and the use of alternative theories, the use of information and communication technologies, a sense of initiative and entrepreneurship. The Finance course aims to enhance students' understanding of the various economic phenomena of everyday life. Also, this basic knowledge helps them to study economics in greater depth, in order to form their own understanding of the economic systems and economic laws that regulate our lives in national and international contexts. To add, there is also a course called Domestic Economics which is available in the 2nd and 3rd Grades. The course aims to enhance students' knowledge and skills in order to be able to decide and act consciously and informed on issues that affect their well-being.

		Orientation Courses		Domestic Economics
		Mathematics	Finance	
Games		Topics		
Money & Transactions	Choose and Play		Banknotes and coins, currency exchange	
	Let's Exchange		Banknotes and coins, currency exchange	
	Score a goal		Expenditure made with household income Budget	Expenditure made with household income Budget
	Play with interests	Interest rate Cost of the credit		
	Find the way out	Calculating VAT		

		Orientation Courses		Domestic Economics
		Mathematics	Finance	
Games		Topics		
Planning & Management	Your Financial Check-Up			Definition of Budget Short term Vs. Long term needs Balance Budget Priorities Unexpected situations that affect household income Emergency fund included in the budget Medium- and long-term objectives
	Make ends Meet		Sources of Income Expenditure made with household income Budget Necessary Vs Superfluous expenses Fixed Vs. Variable expenses Optional Vs. Variable expenses Balance Budget Priorities Goals and precautions against a risk Investment of savings	Definition of Budget Sources of Income Expenditure made with household income Budget Necessary Vs Superfluous expenses Fixed Vs. Variable expenses Optional Vs. Variable expenses Balance Budget Priorities Goals and precautions against a risk Investment of savings
	Rainy days		Necessary Vs Superfluous expenses Unexpected situations that affect household income Emergency fund included in the budget	Necessary Vs Superfluous expenses Unexpected situations that affect household income Emergency fund included in the budget

	Nest Eggs		Definition of Budget Fixed Vs. Variable expenses Optional Vs. Variable expenses Balance Budget Priorities Unexpected situations that affect household income Medium- and long-term objectives Multiyear budgeting	Definition of Budget Fixed Vs. Variable expenses Optional Vs. Variable expenses Balance Budget Priorities Unexpected situations that affect household income Medium- and long-term objectives Multiyear budgeting
	Retirement clock		Necessary Vs Superfluous expenses Budget Priorities	

		Orientation Courses		Domestic Economics
		Mathematics	Finance	
Games		Topics		
Risk & Credit	Let's do some profiling		Bank loan Financial needs and capabilities when borrowing Costs of credit	
	The essence of interest rates	Interest rate Costs of credit Fixed Vs Variable interest rates		
	Interest rate and the magic of compounding	Interest rate Costs of credit	Financial needs and capabilities when borrowing Costs of credit Other loan charges	
	Types of personal accounts		Debit cards Credit cards Demand deposit account Bank loan	Debit cards Credit cards Demand deposit account Bank loan
	Do I use the debit card, or is the credit card ... what is the difference even?		Means of payment and inherent costs Debit cards Credit cards	Means of payment and inherent costs Debit cards Credit cards

#### D. Most suitable Target Groups

The main project's target group is low-skilled adults between 18 and 55 in a situation of social risk. In OECD survey of Adult Skills (PIAAC)<sup>3</sup>, adults with low skills are defined as:

- Adults with low educational levels, namely those whose highest qualification is at the lower secondary level (ISCED 0-2), which means they have not completed high-school or equivalent, or
- Adults with low cognitive skill levels, namely those who score at proficiency level 1 or below in the literacy and/or numeracy dimension of the OECD survey of Adult Skills (PIAAC). These are adults who can at most complete very simple reading tasks, such as read brief texts on familiar topics, and mathematical tasks, such as one-step or simple processes involving counting, sorting, basic arithmetic operations and understanding simple percentages.

The most suitable target groups for each minigame will be the same for all of the themes:

- Trainers in formal training courses.
- Tutors in formal processes of recognition and validation of contents.
- Adult trainees in formal training courses.
- Adults involved in formal processes of recognition and validation of contents.
- Adults in general willing to improve their financial literacy competences, as independent users.

## 3.2. Informal/Non-formal Training

### A. Portugal

The Recognition, Validation and Certification of Competences (RVCC) process is part of the National Qualifications System (Sistema Nacional de Qualificações - SNQ). This process is based on a set of methodological assumptions (competences audit, autobiographical approach) that allow the identification, recognition, validation and certification of previously acquired competences by adults throughout life in formal, informal and non-formal contexts. The process consists of the application of a set of assessment tools and activities, to build a portfolio (containing evidence and/or proof of competencies adult possess concerning a particular framework).

There are two stages to academic RVCC processes: competence recognition and validation, then competence certification. Adults can undertake an academic or professional RVCC process, as well as dual certification.

The games could be particularly relevant to the **Academic RVCC Process**. They could be an important resource, both for trainers and adults. The RVCC process is based on frameworks that are part of the National Qualifications Catalogue (Catálogo Nacional de Qualificações - CNQ) (basic level key competence framework, upper secondary key competence framework), with the **academic RVCC divided by areas of key competences**.

- The **Basic Education Academic RVCC** includes the following Keys Competences Areas (KCA) – each of them integrates 4 Competence Units (CU):
  1. Language and Communication
  2. Information and communications technology
  3. Mathematics for life
  4. Citizenship and Employability
- The **secondary education academic RVCC** includes the following Keys Competences Areas (KCA) – each of them integrates a set of Generating Cores (GC):
  1. Citizenship and Professionality
  2. Society, technology and science
  3. Culture, Language and Communication

This process is conducted by guidance, recognition and validation of competencies professional (monitors the adult during the process); and by a group of teachers/trainers qualified to teach specific groups, according to the key competence areas that are part of the respective key competences reference framework for adult education and training. A broad range of methodologies and instruments are used by these professionals. The RVCC Process respects individual differences. So, it is flexible enough to integrate new approaches - as long as they prove to be significant. In this context, we believe that financial literacy games can be used by trainers, as long as they consider that they may be useful to support the adult in demonstrating their competences.

### Example 1:

BASIC EDUCATION ACADEMIC RVCC	
KCA - Mathematics for life	
Competence unit	
1 - Interpret information and understand methods to process her	<b>The games will allow, among others:</b> Calculate the payment of an installment in a credit sale; Calculate discounts on the purchase of goods; Estimate the cost of purchases before reaching the checkout; Using calculators and computer; ...
2 - Perform calculations	
3 - Interpret results and present conclusions	
4 - Interpret the physical space and present conclusions	

### Example 2

SECONDARY EDUCATION ACADEMIC RVCC	
KCA - Society, technology and science	
GC 4 - Management and economics	<b>Games can help adults</b> in the task of "identify, understand and intervene in management and economy situations, from the private and family budget to a more general level through the influence of institutions' financial and financial economy in which it operates and taking into account economic Sciences".

## B. Spain

In Spain, there is a body called National Qualifications Institute, in charge of updating the National Catalogue of Professional Qualifications, which is the basis for the accreditation of competences that have been acquired through work experience and non-formal learning.

This accreditation has been developed since 2009, including the most relevant vocational qualifications related to the production system. Such qualifications are organized within vocational families and levels and they serve as the basis and benchmark to elaborate the training offer of the different vocational training titles and the certificates or professional competences. The vocational families contain:

- Physical and sports activities
- Administration and management
- Agrarian
- Graphic arts
- Arts and Crafts
- Commerce and Marketing
- Building and Civil Works





- Electricity and electronic
- Energy and Water
- Mechanical manufacturing
- Hostel and Tourism
- Personal image
- Image and sound
- Food industries
- Extractive industries
- Computing and Communications
- Installation and maintenance
- Wood, Furniture and Cork
- Maritime- Fishing
- Chemistry
- Health
- Security and environment
- Sociocultural and Community Services
- Textile, Clothing and Leather
- Vehicle Transport and Maintenance
- Glass and Ceramic

The accreditation of the professional competences acquired through work experience and non-formal and informal training is one of the necessary instruments to make lifelong learning a reality, encouraging the adult population, especially those who dropped out with no qualification, to reintegrate into the education system through the recognition of their training.

The common procedure of this accreditation means that candidates must prove that they have the required professional competence. If so, the NQI proceeds to the accreditation of the competence units in which they have proved mastery.

This demonstration is usually linked to a specific number of working hours, training hours in a specific sector.

Besides, at the end of the procedure, the candidates could have some guidelines to complete the training leading to obtaining a VET Title or a Certificate of professionalism.

The EUROINVESTMENT games could be particularly relevant to the Administration & Management and Commerce & Marketing families. They can be used as complementary materials for the recognition of competences in some units of competences.

**Example 1:**

Administration and Management Family	
Accounting and audit management	
Competence unit	
<b>UC0231_3: Carry out accounting and tax management.</b> 1. Interpreting the economic and financial operations that affect business heritage.	<b><u>The games will allow, among others:</u></b>  Financial diagnosis  Important of budgeting  Planning and control  Assessing creditworthiness  Secured and unsecured loans
2. Identifying the different concepts of income and expenses and their relationship with business activity	
3. Objectives, elements and methods to describe and evaluate internal control.	

**Example 2**

Administration and Management Family	
Financial management	
Competence unit	
<b>UC0498_3: Determine the company's financial needs.</b> 1. Carrying out economic, financial and equity analyzes of the financial situation.	<b><u>The games will allow, among others, to:</u></b>  Financial diagnosis  Important of budgeting  Planning and control
2. Preparing budgets.	
<b>UC0500_3: Manage and control the treasury and your budget</b>	
1. Different methods of collection and payment	
2. Periodically monitor bank accounts	

### Example 3

Commerce and Marketing Family	
Administrative and financial management of international trade	
Competence unit	
<b>UC0244_3: Manage collection and payment operations in international transactions.</b>	<b><u>The games will allow, among others, to:</u></b>
1. Analyzing possible means of international payments appropriate to commercial operations of goods, services or projects.	Calculate discounts on the purchase of goods;  Estimate the cost of purchases before reaching the checkout;  Use calculators and computer;
2. Exchange rates and currencies.	Convert into different currencies  Calculate the exchange rate in commercial operations  Calculate interest rates in commercial operations  Calculate Value Added Tax

### C. Cyprus

The Human Resource Development Authority of Cyprus is a competent body that regulates and awards the Vocational Qualifications in Cyprus. It has established and implements since 2007 the System of Vocational Qualifications (SVQ). The purpose of the SVQ is to enhance the knowledge and skills of human resources on different performance areas through the certification of professional qualifications.

The certification of professional qualifications supports the unemployed and inactive to find new job opportunities, and at the same time, it contributes to upskilling those already employed. In addition, companies that promote the certification of the professional qualifications of their employees, upgrade their human resources and consequently increase their productivity and competitiveness.

The certification of the professional qualifications is based on the Professional Qualifications Standards (PQS) developed by the Human Resource Development Authority of Cyprus. The areas in which Professional Qualifications Standards have been developed are the following:

- Tourist Industry
- Wholesale and Retail Trade
- Construction Industry
- Vocational Training Provision
- Manufacturing
- Motor Vehicles Repair
- ICT Systems and Networks
- Hairdressing



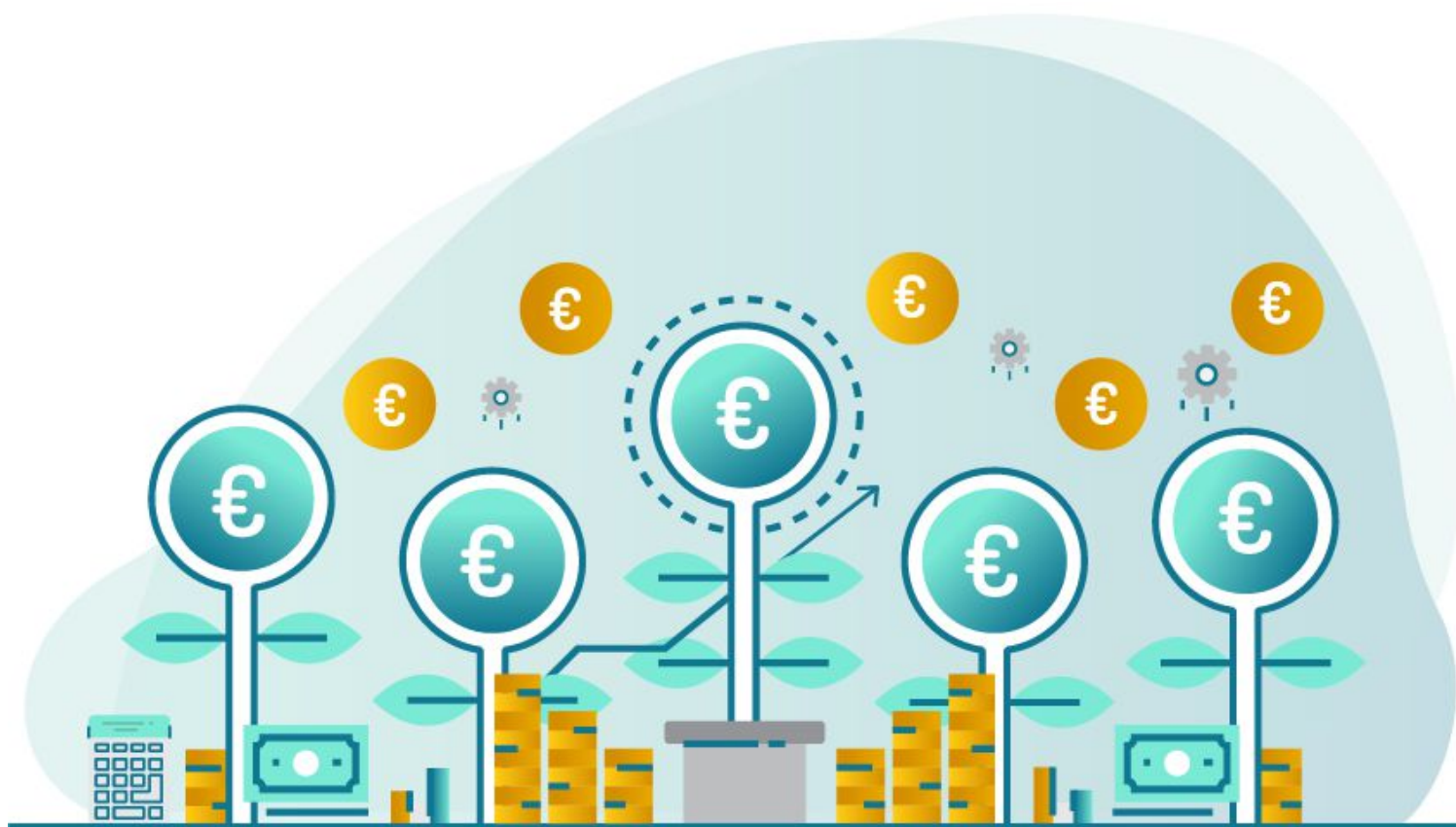
Some of the EUROINVESTMENT games could be particularly relevant to the Wholesale and Retail Trade and the Tourist Industry. They could be an important resource for Vocational Training Centres, Vocational Training Facilities and Trainers of Vocational Training who are responsible to deliver training for certification. The methodologies that are used to deliver such training apply adult learning principles. The element of gamification, scenario-based learning and the learning which is connected to needs in real life are clearly related to the aforementioned principles. In this context, we believe that financial literacy games can be used, as long as they are considered as a proper tool for particular target groups of adults and can be utilized in similar thematic areas.

**Example 1:**

Wholesale and Retail Trade - PQS	
Retail Operations	
Competence unit: Management of payments and transactions with banks and third parties	
<p><b>1</b> - How to handle receipts, cash, returns and credits.</p> <p><b>2</b> - What are the financial requirements and obligations of the store to third parties and how is the payment being made.</p> <p><b>3</b> - What are the banking processes and how are they carried out.</p>	<p><b><u>The games will allow, among others:</u></b></p> <p>Calculate the payment of an installment in a credit sale;</p> <p>Calculate discounts on the purchase of goods;</p> <p>Estimate the cost of purchases before reaching the checkout.</p> <p>Calculate a final amount by taking into account both simple and compound interest rates;</p> <p>Distinguish between the different types of credits and loans;</p> <p>Understand the criteria used by a Bank to assess customer credibility.</p>

**Example 2:**

Tourist Industry- PQS	
Reception	
Competence unit: Handling accounting entries and payments	
<p><b>1</b> – How to handle payments and advance payments.</p> <p><b>2</b> – How to charge, how to credit and how to collect money.</p> <p><b>3</b> – How to conduct a currency exchange.</p> <p><b>4</b> – How to conduct cash retention, closing and delivery.</p>	<p><b><u>The games will allow, among others:</u></b></p> <p>Convert amounts in different currencies;</p> <p>Understand and explain the concept of discount;</p> <p>Understand and explain the Value Added Tax (VAT).</p>



## European Financial Literacy Game for Adult Citizens



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

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein. Project Number [2018-1-PT01-KA204-047362]