



Animation of a pedagogical escape room for language education

This document is the collaborative work of six European partners from different countries with different first languages and backgrounds. The reader might notice subtle differences in writing style, which shows the European diversity involved in this project.

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



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CHAPTER 1:

PREPARING STUDENTS

Things to do to prepare students for the game

Preparation is undoubtedly key to any success and this chapter will deal with things to do to prepare students for the game, not only to reduce the amount of possible errors but because a good preparation will help students be more confident about what to expect and will also help them enjoy the experience to the fullest.



Be encouraging

We all know that encouragement has a great impact on all of us.

Teachers play a key role in increasing students' engagement and learning by giving motivational support.



Before the game, a teacher should once again remind students of the importance of teamwork and also that being team players will give them opportunity to deal with challenges more efficiently. The benefits of teamwork should always be stressed and the best way for students to understand them is through practice and when others set the example, but this applies to wider school practices. A teacher should tell students that each of them has their own unique talents and skills and that diverse perspectives can help them come up with interesting ideas.

A teacher may also want to inspire students by citing some famous or popular quotes. For example, “No one can whistle a symphony. It takes a whole orchestra to play it.” (H.E. Luccock) or “Talent wins games, but teamwork and intelligence wins championships.” (Michael Jordan). It is crucial that the teacher encourages students to collaborate effectively in order to be active participants and enjoy the experience as a result. Teachers should also remind students that they should not worry about failure but rather keep trying. Tasks may seem too difficult and even impossible to solve, especially at the very beginning, but they should give their best to move forward without being afraid.

During the game, students won't be able to ask for help and talk directly to the teacher, but the teacher will observe their evolution and give them hints when they see it's been a long time since they haven't solved anything. The only exception is if it is part of a specific game mechanic implemented in the game and it is also possible in case a student is feeling sick or is injured.

Setting ground rules

Ground rules articulate a set of expected behaviors and rules that should be followed so that the students participating in the game have an immersive experience and that the course of the game remains uninterrupted. Setting ground rules is very important and it should be done straightaway and firmly but still using a positive tone. Students react better when they are told what they should be doing rather than what they shouldn't.

Setting a positive tone



The teacher should try to use affirmative instructions whenever possible. Instead of saying “don't break the vase”, they can set a positive tone by saying “The vase is fragile, be careful!”, or paste stickers on the fragile objects in the room.

Sometimes it won't be possible but, in that case, it is vital that the teacher provides an explanation on how establishing rules may be beneficial for the game process and their own safety. For instance, they could say “if you see a red, round sticker or

if it says don't touch it, you should not touch it” or “don't climb on the furniture because it can be dangerous, and you might fall off.”

The teacher should remind students not to be destructive. For example, if a drawer does not open, it may be because there is no need to open it or because students need to find another way of opening it.

Using cell phones and other devices

Ground rules should also specify that cell phones or smart watches, also widely used by schoolchildren, cannot be used during the game and the teacher should ask students to put their phones on silent or to put away their devices in order to stay focused and goal oriented.



They should also remind students to listen actively to one another in order to come up with the solution, try to stay open-minded and be respectful to other students' opinions and ideas even if they don't agree.

Using the restrooms before the game

Before the very game, the teacher should remind students to use the restrooms before entering. Once the adventure begins, they cannot be excused.

Before the game

Teamwork and communication is the key concept to finish an Escape Room. If a teacher wants to prepare students for the experience, they can recommend they watch the video by Mark Rober before the game:



<https://www.youtube.com/watch?v=zwgaTYOx0RI&t=101s>

Here are a few guidelines as well respectively outlined to serve as a good preparation for the students i.e. what they should do before the game in order to successfully escape and achieve the class goal.

1. There is no doubt that thinking about the escape game the night before can make students feel excited. Instead of thinking about the next day which makes it hard to fall asleep, students should keep calm and wake up feeling refreshed and ready for the game. Teacher should explain students that **sleeping helps one's brain to process and retain information** and that it also gives the energy to stay focused on the game.
2. Students should not eat unhealthy food, especially the night before the exams and tests. The same goes for the escape game. Students should eat a balanced meal such as fresh fruit and vegetables, balanced with protein and healthy fats to **feed their brains**.

3. When it comes to the clothes that students should wear while playing the escape game teacher should advise that **wearing comfortable clothes is very important**. Wearing such clothes can prevent students from getting injured. The thing that should also be emphasized here is that by wearing comfortable clothes, students will not feel restricted while playing the game. This means that they will be able to finish all tasks even those that involve physical ability. The teacher should tell students to keep in mind that they surely don't want to wear any kind of clothes which might get in the way of the escape game.

4. Setting **the context is very important because this will make the game more realistic and immersive**. Students should definitely be informed if there is anything specific about the game that they should know beforehand.

Preparation for the topic

The teacher can assign students homework in order to do the preparation at home. When students prepare in advance, they are more invested in the topic and more engaged in the learning process. In this way, they are more likely to participate in the game and stay focused. It is extremely helpful if the teacher assigns homework that requires the student's previous knowledge in order to connect it with the topic. This is especially important if the teacher used "out of the room knowledge" for an enigma (see Tool - Out-of-the-room-knowledge.pdf). It is important to keep the assigned homework short so that students are not discouraged from doing them. For example, if the topic of the escape game is related to history, the teacher can give students homework assignments to do the research on the world's greatest rulers. A good way of preparation for the topic can be the teacher playing a video related to the topic because students really enjoy watching videos. On the very same day, the teacher can show students objects related to the content which will lead them to the discovery of the topic. All in all, the teacher should stress the importance of the preparation and state how much it is important to be well prepared for the next class, what skills will be practiced, what knowledge will be gained and used, and how it will help them for their future studying. Apart from all students' tasks it is the teacher's task to motivate and inspire their students to enjoy themselves playing the escape game.

Use previous lessons for preparation

Students often regard classes to be isolated units, each having different content. Having a quiz after each lesson helps them to get a recap of everything they have learnt. It can also be an introduction to the next class that might help them get familiar with the most relevant elements and connect them with other subjects.

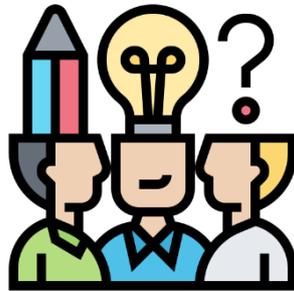
In comparison to Traditional learning that often tends to be limited in structure, Game-based learning motivates and encourages students who acquire new skills or develop the existing ones in a way that is both amusing and beneficial for them. Before playing a real escape game, the students should be provided with an opportunity for practice. Various interactive platforms such as Kahoot or Quizizz can be incorporated into the classroom to make students see different perspectives of a certain topic or to see them making decisions in a specific moment and in a setting they haven't got used to. The teacher can use ready-made material found on these platforms or make their own in order to prepare students for an escape game. The teacher can use text, audio recordings, colors, connect as many subjects as necessary to provide a game-based experience. The teacher can divide the class in several groups in order to promote teamwork which will be needed once they try the actual escape game. It is important for the teacher to create balanced groups if some of the students have learning difficulties which will be thoroughly explained in the section "Inclusive Escape Games". Quizizz can contain most elements of an escape game: teamwork, riddles, mysteries, facts, and all of that can be time limited, which strengthens the excitement and students' engagement. The teacher can also use online escape games in order to see how students cope with riddles and how they allocate time they have available. Students can get familiar with the concept of an escape game if they haven't played before and in that way, they won't feel like they are out of their comfort zone. Therefore, the teacher can have an insight of all the shortcomings and positive feedback they might get from their students.

CHAPTER 2:

INCLUSIVE ESCAPE GAMES

Implementing an inclusive escape game

This chapter will complement the other chapters of this guide as it will explain how the escape game experience can be rendered inclusive for all students.



It will focus on students who have specific needs, phobias, traumas, or emotional disorders and explain how to adapt the game for them to feel fully included and safe throughout the experience. The goal is not to make any of the activities easier, but rather to remove the barriers that prevent them from having the same access to the escape room as their peers.

1. Getting started

The first thing to do when you know some of your students will need adaptations is to make a comprehensive list of all the difficulties your students have. This includes Specific Learning Disorders, Sensory Impairment, Emotional Disorders, phobias, traumas, and any other condition that might generate specific needs.

If you are not sure, the simplest thing to do is ask them which tasks they might have difficulties with in their everyday life. These difficulties can involve manipulations, reading, writing, speaking, listening, managing time pressure, phobia, or trauma triggers, etc.

Once you have a list of your students' needs, you can proceed to prepare a plan for the division of teams according to each student's strengths and weaknesses to ensure you have homogenous teams. You could also consider giving each student a specific role in the team if you feel it is absolutely necessary in order to foster efficient collaboration within the group. These roles should of course be consistent with the scenario you are using for the game.

2. Inclusion checklists

Based on your students' difficulties, you will need to prepare some checklists before the game. These checklists will allow you to make sure your game is designed and implemented in the most inclusive way possible for your students. These checklists will vary from one classroom to another as they will be customized according to your students' needs.



First, make a checklist about the material you are using. This checklist might include some items such as:

- Big-enough locks to be used by students with Dyspraxia
- Sufficient quality of audio material for students with hearing loss or speech disorders
- Text written in an inclusive sans serif font in at least size 12 with 1.5 line spacing

Another checklist to make would focus on the room in which the game is happening. It might include some items such as:

- Enough space for students with Dyspraxia or reduced mobility to move through
- At least one window to avoid triggering any phobias among participants
- Good acoustics to ensure proper sound perception for students with hearing impairment

Finally, another checklist would focus on the processes you are putting in place. This checklist could contain the following items:

- The rules are established clearly from the start and reminded through different items in the room (rules list, “do not touch” stickers, ...) to avoid memorization difficulties
- Proper time management is fostered through a digital clock on the wall to facilitate its reading for students who have difficulties telling the time
- The Game Master’s role and the procedure through which students will be contacted have been explained to avoid triggering anxiety responses

3. Which adaptations can be useful for which specific needs?

Among the main difficulties that students might experience, here is a list of some of the most common ones, with the possible adaptations that we would suggest to ensure an inclusive implementation of the game experience:

Reading difficulties

For students who have reading difficulties, it is important that the material you produce for the escape game be designed in an inclusive font and format. For example, you could put the text in the Open Sans font, in size 12 (14 for titles) and with a 1.5 line spacing. The text should be aligned to the left and italics and underlining should be avoided.



This also includes the contrast, which can be checked easily using online tools such as the one on the Colors website:

Color Contrast Checker

Calculate the contrast ratio of text and background colors.

The screenshot shows the Color Contrast Checker interface. On the left, there are input fields for 'Text color' (hex code #112A46) and 'Background color' (hex code #ACC8E5). Below these, the 'Contrast' section displays a large green box with the ratio '8.42' and the text 'Very good' accompanied by five green stars. Underneath, two smaller green boxes show 'Small text' with three stars and 'Large text' with three stars. At the bottom of the tool, a note states: 'Good contrast for small text (below 18pt) and great contrast for large text (above 18pt or bold above 14pt). [Click to enhance](#)'. To the right, a preview window shows the text 'Quote n. 4' in a dark blue font on a light blue background. Below the title, the quote reads: 'When hungry, eat your rice; when tired, close your eyes. Fools may laugh at me, but wise men will know what I mean.' The author's name 'Lin-Chi' is centered at the bottom of the preview.

<https://colors.co/contrast-checker/112a46-acc8e5>

When you print text, make sure the paper is thick enough, especially if you are printing on both sides, to avoid any barriers to those who have reading difficulties.

Writing difficulties

When the focus of the task is writing, you should also make sure to provide adapted material if needed. Provide enough space for the students to write and keep in mind the grammar or vocabulary theme you have chosen to work on. If students make mistakes in some words that are unrelated to the focus of your task, maybe they shouldn't lose points because of them.

If they need to write a code and have mixed some letters, as it is often the case for students with Dyslexia, you could also intervene as Game Master to make sure they don't lose time because they put a "b" instead of a "p" for example.

Motor difficulties

If your students have motor difficulties, you will probably need to discuss the materials with them before organizing the activity. They might need you to provide some specific pens, rulers, or locks instead of traditional ones, so they are able to grasp the objects without additional difficulties. For students with reduced mobility, the adaptation might involve you testing the room settings without decorations or enigma elements before the game and asking them if they can move around the space easily. Also make sure that all objects are at an attainable height for all students, regardless of their size or if they are using a wheelchair.

Math difficulties

As the enigmas in this project are about language learning, you might think that math difficulties could be irrelevant in this case.

However, it is important to acknowledge that some students might still have difficulties telling the time on an analog clock, focusing on math operations while speaking in a foreign



language, or recognizing math patterns and sequences. Try to use as few math-related tasks as you can, provide a calculator, and make sure they are adapted so they do not interfere with the language learning tasks the game should focus on. For this, you could talk with the students' math teachers, their parents or even the students themselves to spot the tasks you might need to avoid.

Spoken language difficulties

For students who have speech disorders, speaking and hearing tasks might cause some difficulties. In order to adapt your game for those who have difficulties with listening, you should make sure that the quality of all the audio material is good, including the device you might want to use to communicate with the students as a Game Master. Make sure the acoustics of the room are good enough so that no echo or noise interferes with the communication and ask your students to express themselves clearly when they speak to each other so that everyone can participate equally. For students who have difficulties with speech production, provide a safe space with all your students to feel less pressure when speaking. As there is already

some pressure in the game itself, maybe it would be best not to grade their speaking skills in that moment. If they make a mistake, don't interrupt them to make corrections immediately as this could cause an increased self-consciousness and anxiety. Keep notes for the debrief and make general comments without pointing out to specific students who made mistakes.

Sensory difficulties

Sensory difficulties that might be the most frequent in games are visual and hearing difficulties. For students with visual impairment, the adaptations for students with reading difficulties also apply. Another important point is to ensure proper lighting in the room. Although escape games often dim the lights to create a mysterious atmosphere, we would not advise to do it in case some students have visual impairment as this would create an additional difficulty for them to read the material. Using braille for students with severe visual impairment as an alternative for written text is also a great way to include them. For students with hearing impairment, the advice given for students with listening skills difficulties apply as well. If you and your students use Sign Language or Cued Speech, these would also facilitate their participation in the activities. Using visual symbols or transcriptions to support the understanding of audio content is also a good idea. For students who use hearing aids or cochlear implants, some tools can also be connected to their devices such as an induction loop or Bluetooth microphones that could be used to improve the communication with their peers.

Phobias, traumas, emotional disorders

As the triggers for phobias, traumas or emotional disorders are very numerous, it is crucial that you ask your students beforehand if they have any of those and if so, what elements could trigger an episode. For example, in order to avoid anxiety triggers, make sure there is no stressful sound or music during the game, explain the processes very clearly from the beginning so they aren't startled by, say, the noise of the Game Master calling the players. For students who have a trauma linked to a certain type of noise or physical contact, make sure to avoid them in your game. The same rule applies for students who have phobias such as clowns, being in the dark, spiders, etc.

4. Testing

The testing phase needs to be discussed with students with all profiles. This means that if you have taken all your students' needs into account, they should be able to feel safe and motivated throughout the experience, just like their peers. Of course, there is always a first test, so you might notice that you forgot to make an adaptation for some of your students. This is normal and will be a good learning experience for you to continue creating games in the future.

When you play the game with students for the first time, tell them from the beginning that you are looking to improve the game and make it as inclusive as possible. Show them that their feedback will be valued and give them a few points to focus on, especially if they were the ones to express a specific need that you tried to be mindful of in your game. If you think it might help, give them a feedback form before they play the game, so they know which elements to evaluate.

Once the game is finished, gather your students for the debrief and make time for a discussion focused on specific needs. This discussion can include students who didn't express any needs, in order to raise awareness about what they could also do to avoid making their peers feel uncomfortable.

Finally, all this feedback will help you improve your game and better understand the difficulties your students have to face in their everyday learning experience.

CHAPTER 3:

IMMERSION

Things to do to make sure your players will be immersed in the experience



Immersion for students is essential to enjoy the whole escape room experience. There are several aspects that should be taken into account to get the most out of the escape room and make the students enjoy not only the enigmas, but every aspect of the activity. Paying attention to different details that allow our students to feel as part of the game is extremely important. However, teachers should pay attention to diversity, analysing the necessities of not only the whole group, but also those of each student. To be successful in this task, it is highly recommended to read the chapter on “inclusiveness” in this guide, paying special attention to the explanation referred to “phobias/traumas.”

Below, we can see a detailed explanation of some aspects that should be taken into account when teachers decide to create an escape room in the classroom.

Context

A good and interesting context is the basis of a successful experience in escape rooms. Both the context and the different enigmas of the escape room should be adapted to different variables: the age of the students, their evolutionary, cognitive and emotional development, their own interests and tastes, etc. Teachers must also take into account the students’ level, adapting the different activities and enigmas to it. It is essential to create a common thread that links every enigma and activity, so that the whole game makes sense together. Some examples of an interesting

context could be an escape room in the ancient Rome, or in England in the 19th century (we can base this in the books of Charles Dickens, for example).

Place

The escape room should be organised in a proper space, taking into account the possibilities of the school or academy. It is important to check how many rooms we can use, as well as the characteristics of each room. The teacher can prepare not only the classroom, but also the laboratory, the gym or the music room if they are available. Once the different places are chosen, the teacher could organise the enigmas in each room. For example, if the escape room is related to the subject of Geography, each room can be a different country with enigmas connected to that country. It is also essential to have an emergency evacuation map in each room to guarantee the safety of the students if there is any problem or emergency. It is possible that the room has different furniture inside, so the teacher should take this into account, taking advantage of some furniture and resources, using them to make the experience more engaging. For example, if there are any lockers, they can be used to hide some clues inside. Remember that the different rooms must have enough space for your students to move around without interfering with other groups' experiences. Make sure that the room is equipped with everything students will need for the experience including the enigmas, the clues, the electronic devices and everything they are going to use. This is essential so that the immersion does not get interrupted.

Decorations

The teacher should spend time thinking of different ways of decorating and preparing the rooms so that students can enjoy the whole experience. In addition, students can help in the decoration, creating different materials in previous lessons or even bringing some objects to the school. The decorations should be in line with the topic of the escape room to create an atmosphere that allows students to be immersed in the experience. Decorations can be also used to hide the Game Master's camera. We can do these decorations by using different objects; for example, if the escape room relates to Halloween, spider webs, a pair of candelabras or some old pictures

on the wall could be used as appropriate decorations. Some decorations can be also used as clues or objects students will have to find in order to solve an enigma.



Music

A good and suitable playlist is essential in the students' immersion. The music should be in line with the topic of the escape room. If the escape room is about Halloween, some frightening music or the sound of some footsteps and moans can be heard, for instance. Music can be heard during the whole experience. However, the volume should not be too loud, so that students are able to talk in a normal tone of voice. Try not to use well-known music because students might get distracted if they know the songs and this can provoke a lack of attention.

Smell



The way in which the room smells can be an important factor in order to get students immersed in the experience of the escape room. Remember not to use a very strong smell, because that factor could distract students, not allowing them to concentrate in the different tasks. Keep in mind that the smells used must be pleasant and they should have something in common with the topic of the escape room. For example, if the escape room is based on the Arabic world, some kind of incense can be used to create a more realistic atmosphere. Consequently, students will experience the typical smell of the Arabic streets and markets, and this can be useful to encourage them to enjoy the experience.

Amount of light

This resource can be encouraging in immersing students into the experience. The amount of light is important to create an adequate atmosphere. The teacher can also use different amounts of light depending on the zone of the room, providing different lamps or even torches or candles. For example, if the escape room is set in the Arabic world, the teacher can place some candles arranged around the classroom. On the other hand, if the escape room is based on space and galaxies, there will be some neon lights located in different points of the classroom. The teacher should ensure that the amount of light is not a problem in the process, checking that students can see and solve the different enigmas properly.

Costumes

Another good option to get the students immersed in the experience of the escape room is wearing some costumes. Both the teacher and the students can wear some costumes in line with the topic of the game. Furthermore, the teacher can ask some of their colleagues to dress up and participate in the experience too, cooperating in the immersion of the students. These other teachers can be there as non-playing characters for specific enigmas. For example, in some of the enigmas students would have to find a character to give them a key code (a sentence, a word, etc.) and the character would give them a clue for what comes next. It is possible that the costumes can be created in previous lessons. The teacher can give the students some materials to craft their own costumes. For example, if the escape room is based on the Roman Empire, students can make a Roman helmet with aluminium foil. They can also create a sword made of cardboard or foam.



Visual aids and technology

Nowadays people are used to receiving continuous visual stimulus. We spend a lot of time looking at our mobile phones, watching television or playing computer games. Visual stimulus is part of our daily life and it seems to be useful when talking about motivation and engagement. With this in mind, the teacher can create some visual aids using different applications or programs (Genially, Canva, PowerPoint, etc.). They can also create some slides to explain the instructions of the different enigmas, for example. In addition, some interactive enigmas can be created on a tablet or a laptop as they can be more attractive to students. Visual aids can help students get immersed in the game as they are used to seeing them every day.



Game master

This leading figure is key when talking about students' immersion. It is usually represented by the teacher, although the teacher can create a virtual game master. For example, if the escape room is in line with the discovery of America, the teacher can create a virtual Christopher Columbus who talks to the students, explaining the rules of the escape room and giving them some historical background. This figure can be useful to explain the instructions as well as guide the students, helping them when they feel lost in an enigma. However, it is important to take into account that the presence of the game master should not be noticed, so the game stays immersive. To foster that immersion, it is best if the game master is in another room and can observe what is happening with a camera, or if they are hidden behind a folding screen so the students don't see them.

Puzzles and enigmas

The different enigmas and puzzles that students have to solve should be related to the topic, following the common thread of the escape room. For example, if it is set in the Ancient Egypt, some papyrus manuscripts, hieroglyphs, or ancient keys can be used. Teachers should also notice that it is key for students to find objects that are easy to manipulate, open or play with. Otherwise, the experience can be interrupted, and they could feel frustrated or demotivated.

Teachers can also use microcontrollers (Arduino/Raspberry), which could allow the creator to “hide” complex game mechanics without killing their budget or the room design. An example would be to use them to fake ancient magic, such as the fantastic folklore in King Arthur or Greek mythology, or to simplify heavy technological manipulations.



Pre-information

Teachers should prepare some previous lessons to explain students the background as well as some general instructions of the escape room. This can prepare them for the experience. For more information about preparation, please check the first part of this guide on “things to do to prepare your students.”

CHAPTER 4:

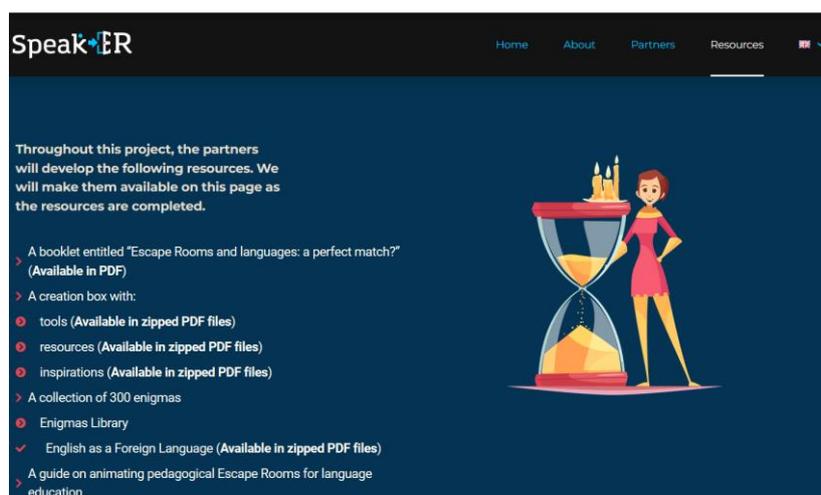
PREPARING YOURSELF AS A

GAME MASTER

Introduction

What is a game master? If you have read this project's previous resources, chances are you already encountered the term. You might even already know the answer.

Game masters act as games' organisers, arbitrators, and moderators. They welcome, guide, and help the players while integrating themselves within the game and/or staying discreet to maintain the players' immersion. Following the game, they debrief and clarify any remaining doubts with the players. Game masters fall under the non-player characters category (NPC). To learn more about it, check out the corresponding tool 'non-player character' in the creation box of the project [here](#). Inside, you will also find two additional resources on the topic, namely 'Game master and the scenario' and 'Game masters and teachers'.



<https://speakerproject.eu/resources/>

If you are a teacher seeking to create your own pedagogical escape room (ER), you might take on both the roles of game designer and game master. In commercial games, the two are often – if not always – different people, or teams.

In this part of the guide, we answer the question: what is the role of the game master and how to prepare for it? The list given includes all the steps to take care of if you are only the game master. Therefore, if you are also the game designer, some parts might be redundant.

Master the immersion

You could expect the immersive aspect of the game to fall into the hands of the game designer. It is only partially true. Even with an ER perfectly designed for immersion, the performance of the game master is of great importance. You will discover below why and how to master your part of the immersion process.

1. Test a commercial EG

Preparing yourself to become a game master starts similarly to preparing yourself to create it: you should try out a commercial escape game.

If you have created the ER you are about to play, chances are you have already done this step. However, did you pay attention to the game master's role? Did you notice what they were doing and how? Here again, there is no better way to understand the role and importance of the game master than to experience it yourself. Most of the time, if the game master is well integrated within the game, you will not realise their presence or their influence on your game flow when playing. At best, you will think the hints given were part of the room. Here is one example of a good integration: your ER is set in a futuristic context. As players unveil the storyline, you communicate by text message on a computer screen with a personalised artificial intelligence (AI). All storytelling, communication and hints happen through the 'voice' of the AI. Therefore, when a hint is needed, it is not an entity foreign to the game environment that gives it but a game character. The immersion remains untouched.

On the contrary, if the game master is not well included in the game flow, you will notice it right away, whether you are an experienced player or not. On a positive note, experiencing a game with a terrible game master will give you ideas on what to avoid in your own setup.

Discuss with your game master during your debriefing session. Ask them how other participants usually solve the enigmas you have been confronted with and to share the usual feedback people give on the room. Ask at which point in the game people require hints: you might have found an item that people usually struggle with, etc.

2. Know your players

If you are the class' teacher, you have one advantage: you know your players, their level, age, behaviour, difficulties, interests, disorders, as well as class dynamics and relationships between students.



Even if you do not know the students prior to the game, the environment still gives you an advantage: you have access to said information. Therefore, ask their teacher(s).

One of the most important checkpoints is specific needs. You can come back to the second chapter of this guide for more information regarding the adaptation of the rooms. As a game master, you play a role in the overall accessibility and inclusivity of the room. You will need to communicate with students in a way that will make

them feel included. Speak clearly, pay attention to your students' reactions and do not hesitate to repeat if you deem it necessary.

Overall, knowledge of your players comes in handy to anticipate their reactions. To know more, check SpeakER project's 'Framework and roadmap for escape room creation in language education', as well as the tool 'Student profile sheet checked' included in the creation box.

3. Prepare an introductory speech

The introductory speech is not only a way to explain the concept and to set the rules. It is also the first part of the game, and it has a significant impact on your players' immersion.



It should be divided into three steps and contain first:

- the objective ('Find a way to exit the room')
- the rules of the game ('Do not climb', 'Do not use force', 'Do not touch the elements marked by red tape.', etc.). Refer to the tool 'Rules – games and safety' in the creation box for more information.
- the storytelling: introduce the story, the characters (if any), the mission, the players' roles, etc. You can even hide some clues in your speech. Overall, your introductory speech should set the mood for the entire game and should not be neglected.

However, make sure that none of the information you provide during the introductory speech misleads the players, such as providing a rule that does not apply to the game under the guise of a joke: if players try to respect it, they might encounter challenges during the game and feel frustrated.

If the theme allows it, the best would be to dress accordingly.

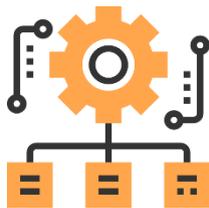
Finally, to enhance immersion even more, step up your acting. Repeat your lines as if you were preparing a theatre performance. Practice in front of your colleagues.

Refer to part 3 of this guide for more information on the importance of immersion in an ER.

Master the game mechanics

In this part, we leave aside the immersion process to dive into game knowledge. As we mentioned in the introduction of this part, the game master is here to organise, arbitrate and moderate the game. Therefore, you should know the game almost as much as the game designer. We outline below the points on which you should focus.

Structure and scenario



The first step of this second prep phase will be to get to grips with the scenario. If you are not the one who created it, learn it. If you have created it among many more, dive into it again. This way, you will avoid confusing one scenario with another.

Print out the roadmap created and study the game's mechanics and structure. The corresponding tool 'roadmap' included in the creation box will help you to understand its utility. You should know which enigma comes after the other or alongside one another, which props give which clues.

At this step, we strongly encourage you to unfold the enigmas sequence in your head, especially if you have not had the chance to test the game beforehand. Try to spot the moments where the game might go wrong: an enigma too complicated for the class level, a possibility to avoid an exercise, a malfunctioning object, etc. Why not set a test run with other teachers or staff members?

Among all, pay special attention to the events that you will be activating (play a piece of music, unlock an element, etc.) and to their timeline.

Last but not least, if you have tested the room before, read your notes. If you know other teachers who played it before, ask for feedback. Every group is different, and every individual might come up with a new way of solving each enigma. Check out the resource 'Testing your enigma' from the creation box for more information.

The room

The second step deals with the game environment. Below is a list of what you should do.

Study the room set-up: check the features inside and outside, if everything is functioning correctly. Pay special attention to the electronic props, especially to the cameras (if the designer included them in the room). They are an essential tool for a game master as they allow to follow the game status from the outside.

- All information regarding the room set-up – which could fall on the game master – is given in part 5 of this guide. Information on cameras is provided in the corresponding tool 'cameras' in the creation box.

If you are playing in the room a second time, put everything back into place before starting the new game: close the lockers, shuffle the numbers, hide the keys and items where they belong, undo jigsaws, restart labyrinths and presentations, etc.

Check if the communication device works and how. Every ER has one. It is a point of contact between the players and the game master. It is used to help the players by delivering hints or indications. It can be a phone, a walkie-talkie, a chat on a computer/tablet/smartphone, an old letterbox, a robot, etc.

Reminder: Figuring out which communication device is best in the ER setup is part of the game designer's job. However, as game masters are their principal users, do not hesitate to give feedback on its usability or to modify it if you are also the game's designer.

The hints

Brainstorming on hints to deliver is a task that falls both on the game designer and the game master, as it will happen twice. A first list should be drawn during the creation phase by anticipating the possible struggle points (e.g. hiding places, challenging exercises, miscomprehension of links between items, etc.).



However, your list of hints will evolve as you play the room. This is where the game master comes into play. You will find out where players struggle and adapt, upgrade the list. Different sets of players will struggle at different points in a game, giving you additional hints to create to be better prepared the next time. Preparing the hints will help you deliver them promptly and avoid giving straight out answers.

Try to have two sets of difficulty for each hint (when possible), with one revealing more of the solution than the other. You will then be able to adapt your delivery to the level of understanding of the group. If you feel like they are close to deciphering the code, deliver the most challenging hint, and vice versa. It might seem like extra unnecessary work to you, but there is one good reason to do this: players' attention to the game is maintained thanks to a delicate balance between achievability and challenge. That is because, to put it in the words of Jane McGonigal (2011): 'there is nothing as engaging as the state of working at the very limits of your ability.' The most engaging game is the one where, even if you fail several times, you try again because you know you can succeed. Reversely, games that are too challenging or not enough might bring dissatisfaction. That is why you should monitor the level of your hints.

Prepare the aftermath

For the game to be an efficient learning activity, it must end with a debriefing session. It is an important part of the game master's job, and it is essential in an educational context. Once again, it is better to come prepared.

1. Takes notes

First things first, have a notepad ready. For your debriefing session to be efficient, you will need to take notes on your students' struggles. Note the time they spend on each step, note their mistakes, highlight which hint you have given, etc. Not only will it allow you to anticipate the next game better, but it will also be the base of the review process, as it will act as a reminder. To do so, you can create and print a track form. Refer to the corresponding tool in the creation box to know more.

Additionally, write down the moments where your students take an alternative path, especially those you have not thought ahead. For example, they might discover a glitch in the game, such as a way to crack a code that you had not anticipated. It might take them further down the path than they should be, which might create some understanding difficulties. By noting it down, you will be able to transfer the information to the game designer or amend the scenario yourself to prevent the glitch from happening again.

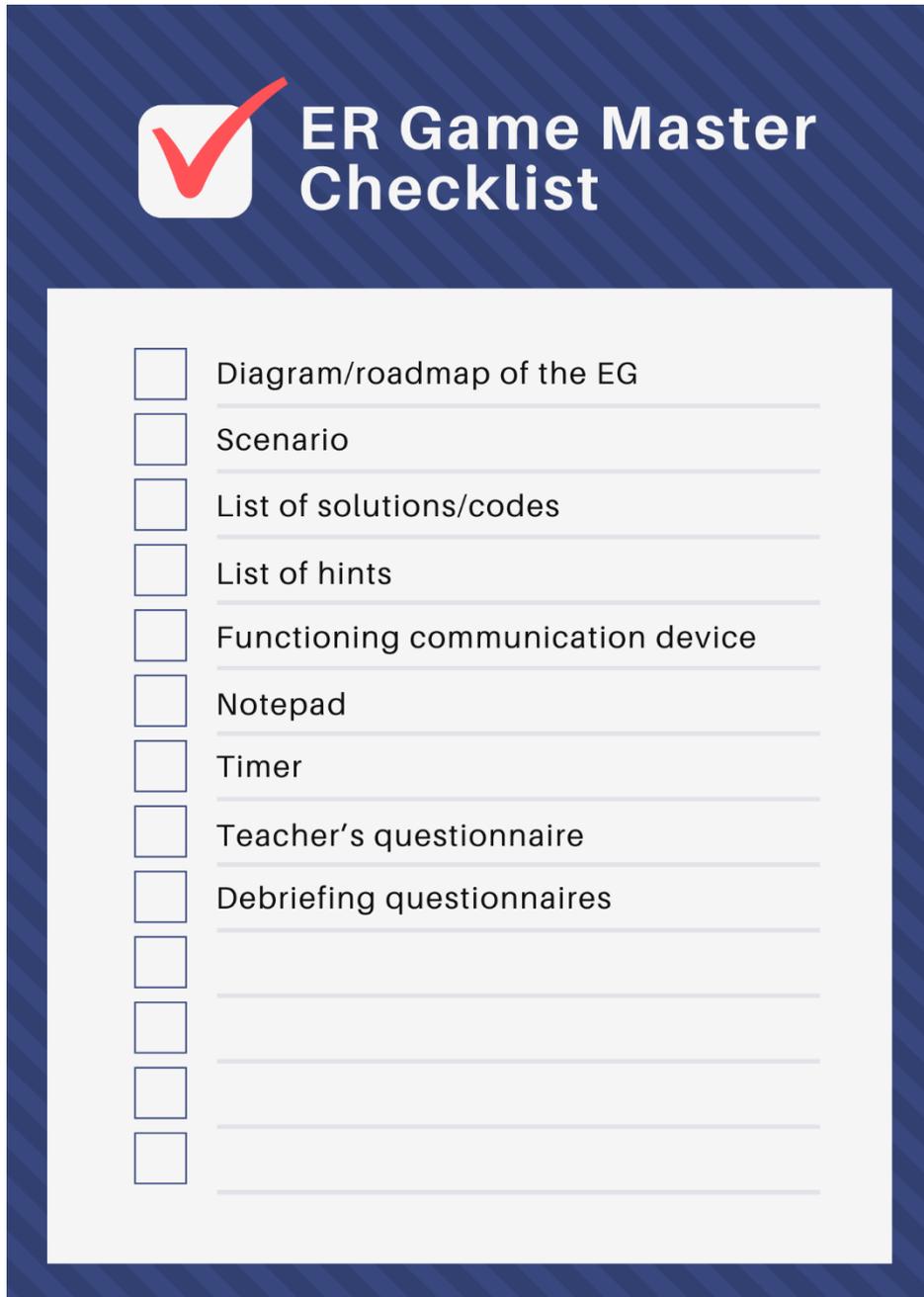
2. Debriefing

A good debriefing session will happen in two phases. First, you need to finalise the game with the players if they don't get out in time. The length of time required at this step will vary according to the player's progression at the end of the timer.

Second, sit your students down in a circle, ask for feedback, and ask questions using your notes. To discover more on how to prepare yourself for it, scroll down to page 40, where we precisely outline all the steps you should cover to have a debrief useful to both you and your students. You can also check out the resource 'how to organise the debrief', included in the creation box.

Make your own life easier (optional)

Last but not least, here is one final piece of advice. This – optional – step will ease the preparation process. Print the following list and check the boxes when you have said element in front of you.



The graphic features a dark blue background with a diagonal line pattern. At the top left is a white square containing a red checkmark. To its right, the text 'ER Game Master Checklist' is written in white. Below this, a white rectangular area contains a checklist with ten items, each preceded by a small white square checkbox. The items are: Diagram/roadmap of the EG, Scenario, List of solutions/codes, List of hints, Functioning communication device, Notepad, Timer, Teacher's questionnaire, Debriefing questionnaires, and three blank lines for additional items.

ER Game Master Checklist

- Diagram/roadmap of the EG
- Scenario
- List of solutions/codes
- List of hints
- Functioning communication device
- Notepad
- Timer
- Teacher's questionnaire
- Debriefing questionnaires
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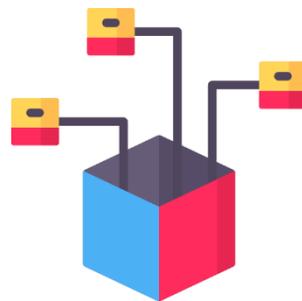
If you are also the class teacher, we recommend you prepare easy-to-fill tables and checklists to take note of your students' progress and difficulties on the subject taught.

CHAPTER 5:

TAKING CARE OF LOGISTICS

The importance of logistics in education and in escape room activities

Even though logistics has more to do with businesses, certain skills can be applied to education. Can we be sure that pupils will learn at the right moment and according to their needs? The 7 Rights of logistics work just as well in education. As educators, we must take into consideration the product, customer, quantity, condition, place, time, and cost. Escape games in education can be very complex and, in order to get everything right, teachers have to deal with a lot of logistics, that is thinking of every detail and assessing every aspect thoroughly.



What you need

Tools

Any subject or topic can be turned into an escape room, and you can adapt it to any class size or age group. There are a lot of materials that can be reused, such as locks, boxes, cards, ciphers, cryptograms, code wheels or QR codes, but others can be used only once: cut outs or scratch cards. In terms of quantity, the materials should be varied so that the pupils will find the thrill of discovering new adventures. When it comes to quality, in order to be able to use the materials for a longer period of time and by as many pupils as possible, it should be high.

Most of the materials that can be used in educational escape rooms can be designed and manufactured by the teachers themselves, especially if the activities involve languages. For example, there are websites that will help create all sorts of fake concert tickets, newspaper clippings, plane tickets, ransom notes or WhatsApp messages. Also, if you decide to go classic, with hidden objects, for example, you will not need any special equipment or help. But if you aim to more complex experiences, the solution is to ask for external technical support. For example, the use of microcontrollers will allow the creators to expand the variety of enigmas used.

A room

Finding the right place to put together an escape room can be quite challenging, especially if you want the room to be used for different subjects. A room within the school that will serve only as an escape room would be ideal. This way teachers would have a common place where they could store materials for future use. The room must serve its purpose: it has to be big enough to accommodate all the players, it has to be safe and ready to cater for students with specific needs. The furniture must also be modular because the escape room scenarios are special and complex, involving pair work, teamwork, and even whole-class work.

If it is impossible to set up a special room for the escape room activities, your room or the classroom can be turned into a brain-teasing adventure. The regular classroom lacks the advantage of clever design that might help you create an escape room activity, but with a bit of imagination and effort, you will be able to transform it. For example, if you are planning a Halloween escape game, darkness is maybe the first thing that comes to one's mind. So, cover the windows, dim the lights and half the work is done, but make sure that the material is visible and readable. Also, the room should be equipped with devices that can make the experience more immersive, for example speakers for genuine announcements or thematic music, overhead projectors for hints or displaying enigmas or messages.

If you want to take your lesson to another level, you need more than one room in the school. The aim of the game will be to solve all the enigmas in order to escape the school and not the room. This will most likely involve fellow teachers that will provide

the much-needed help with decorating and assuring that everything is planned thoroughly.

Planning the activity

First and foremost, when planning an escape room for the first time, you have to acknowledge the fact that it will take longer than any other lesson planning you have done until then, as you have to come up with a storyline and consider all the details of the plot. Also, if you want to ensure the success of your escape room, a playtesting is necessary. This way you will know how to tackle most of the problematic situations that might emerge.

Preparation stages

1. Decide on a subject matter and draft the scenario that might accompany it.
2. Choose your locks and boxes and do not forget about the timer.
3. Depending on the number of participants, the tools available and the space, you should decide whether the escape room will be physical, digital, or mixed.
4. You should have a clear image of what notions you are going to teach or revise so that you could start exploring on what type of enigmas to use.
5. Now you should begin the most challenging phase: the creation of enigmas. Remember that there is a great variety of apps and websites that will help you with these.
6. Playtesting the activity with a few students or making sure that everything works well.

Time is of the essence when creating an escape room, as planning begins way ahead of the game. For example, if you want to consolidate the students' knowledge on *The Great Gatsby*, you must pave the way during at least one class on the subject and then give them time to read and study the novel.

Useful skills

Creating an escape room for educational purposes might seem quite challenging, but once you start doing it you are bound to discover that you are good at it.

Soft skills

- **Creativity** - First of all, the good news is that you do not have to be creative by nature. The secret of getting ahead is getting started. So, study what others have done, play an escape game yourself online if you do not have a provider where you live, create a makerspace at school. You might find out that some of your colleagues are passionate about escape rooms and they will be a great source of inspiration.
- **Teamwork** – useful when brainstorming during the planning and creation of escape rooms.
- **Leadership** – you are the one who pulls all the strings during the game.
- **Communication** – this is always the key to success, as it is the process of creating and sharing ideas, information, views, and facts.
- **Good time management** – managing your time wisely will increase productivity before, during, and after the creation of escape games.



Hard skills

- Experience is the best teacher. You cannot teach others what you do not know. So, you have to know your way with **hands-on materials** and operation of certain locks, working with cards, numbers, ciphers, or mazes.
- **Digital** escape rooms and locks are easy to create and use if you have basic computer skills. Most teachers are familiar with Microsoft Word, for example. It can be a great tool for an escape game as you can password protect documents that contain further enigmas.

Setup the room

Install the room

The teacher/GM has to consider where the game will take place, what elements will already be present and how the game will be introduced. For example, if the game is going to take place in a classroom, how will players understand which elements are part of the game and which are simply part of the classroom? The GM has to adapt the furniture to the needs of the game. How will they know which parts should not be touched and which can be explored freely? The GM has to think of some post-it notes to guide the players. If the chosen place is the classroom, it would be nice to use objects that seem an integral part of the classroom itself, for example a clock with a hidden compartment or a bottled drink in a paper basket. Everything has to be checked: the size of the classroom, the exit, the safety devices, the toolbox/boxes, the atmosphere (sounds, music, voice-off, air quality). It should also be considered that the game could be interrupted (for example by a student who arrives late, by the fire alarm) and what the implications of these interruptions are. A checklist could be very useful, especially for the first games. Here are some examples:

- No objects above 2 m of height
- A “do not touch” tape on the access ramp to the electronic devices
- Access to electricity
- Good Internet connection
- Music/sound volume
- Air quality
- A list of the objects and devices used during the game
- Etc.

Test your enigmas

Before using the game with the students, it is absolutely necessary to test it and to make sure that the setup is correct, and everything works properly. The teacher/GM can make a version of the game that is as simplified as possible and test it with some colleagues, friends or even students. The GM should test the game with 2 or 3 teams of colleagues/friends, to make sure everything is:

- logical
- consistent
- understandable
- achievable

The GM can take the opportunity to time the solving of the puzzles and the duration of the complete escape game.



The game

Before the game

We think that a briefing moment is useful for players, both to inform them about the typology of the game and its fundamental rules and to guide them to the narrative of the specific game. This should involve safety information (for example, do not climb on the library/desks, or do not disconnect the cables from the sockets). It should also involve Covid safety measures: hand sanitizer, masks, room ventilation, disposable gloves if necessary.

It is necessary:

- to be clear about what is or is not part of the game (for example, is not part of the game everything that is above your heads or that is highlighted by an adhesive)
- to create expectations in relation to the behaviours accepted in the room (for example, aggressiveness is not allowed)
- to introduce possible difficulties or unusual locks
- to explain what happens in the case of a real emergency

Also see the first part on “Preparing students”, page 4.

During the game- difficulties that might occur

As in any type of game, it is important to balance the difficulties inside an escape room, so that it is not too difficult, to the point of generating frustration, and not even too easy, to the point of resulting in boredom. This can be difficult for team games, especially when there is a range of skills in the team or in general in the classroom. Here are some difficulties that teachers /GMs might encounter during the escape game:

- players need to drink or to go to the restroom → tell them to come early and to have the time to prepare for the game
- communication device from the GM doesn't work → have a backup device ready to be used, as a last recourse talk from the other side of the door
- players are really stuck in the game → give them some more hints
- a physical enigma doesn't work and there's no way to fix it from the GM place → try to overcome this enigma by giving a solution to the players

- An electrical or computer enigma doesn't work and there's no way to fix it from the GM place → as this is a non-physical enigma, the teacher could integrate a button on the GM's desk, to overcome the enigma
- A player got injured or felt sick → stop the game

After the game

After the game (and of course before it starts), the teacher/Game Master has to set up everything, so that (another) group/team can play. If there are many teams playing one after the other, the restart has to be quick and efficient. It will also be important to have a system to ensure that everything is in its place in the room, that the padlocks are closed and that the boxes have the correct contents (a checklist with the materials and their exact place in the room, tips, notes, maps, etc). This can be controlled through a diagram, a room map, or a list. Also, the room must be cleaned respecting Covid safety rules.

CHAPTER 6:

DEBRIEFING

Points to consider



You have just finished playing your escape room and you all feel overjoyed and excited. Does it mean that your game is over now? An educational escape room does not finish before the debriefing session takes place.

In the following pages you can find useful practical details on debriefing. For more information you can also refer to the resource “How to organize the debrief” and to the “Framework and roadmap”.

Forms of debriefing

Debriefing can take place in different ways. Also, it can take place either right after the session or sometime after the session, as is explained below.

Discussions with the participants and the teacher/game master

Students and the teacher/game master discuss after the escape game, when participants feel the excitement of the game and are still enthusiastic about their experience. At this point, it is a good idea to let students express themselves freely without any teacher intervention or guidance.

Questions asked by the teacher/game master

This kind of discussion is guided and aims at bringing to the surface specific aspects of the escape room. In this way, the teacher can have very useful feedback on particular points of the escape room for future updates. This kind of discussion can also encourage students’ self-awareness on specific skills and attitudes.

Online questionnaire

Students might also be asked to respond to an online questionnaire. This might seem unnecessary but can actually prove to be of great help. This is because introverted students always feel more comfortable writing about their feelings and ideas than talking about them in front of others, or simply because an idea might come up to the students after the group discussion in class.

Time spent for debriefing

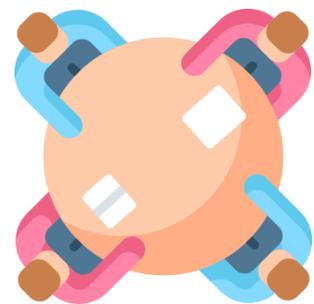
The debriefing session usually takes place right after the game, when students' experience and feelings are still recent. Although its duration might vary it is advisable to last from 5 to 10 minutes.

Who speaks (first)

It is a very good idea for teachers to let players present their experience first and talk freely about any point they find worth mentioning. This part can bring to the surface points that the teacher would be completely unaware of. Another important thing for teachers to bear in mind is that they should not let more talkative students monopolize the discussion, but kindly invite introverted, less confident, or less experienced students to talk about their experience. Setting an inclusive and cooperative classroom atmosphere is very important to make all students welcome in the group discussion.

Classroom setting

It is preferable for students to sit in a circle since they are expected to feel more intimate this way. The fact that they will be able to have eye contact is bound to make them more eager to participate in the discussion and express their feelings. As for the teachers, they can be in the circle among the students. This is much more effective than standing in the middle of the circle, in which case the teacher's figure would dominate the discussion and prevent student's free flow of expression.



Creating the appropriate atmosphere

The more comfortable students feel to participate, the more immersive and effective the escape room is. Therefore, it is very important for students to feel encouraged to participate and share their ideas. Reticent students should feel welcome and encouraged but not pressured to participate. The teacher should make sure that they are given enough time and space to feel comfortable to participate. Also, students have to be active listeners and respect their group members' ideas. The teacher acts as a moderator setting a climate of trust, inclusion, and respect among the whole class. For example, being too serious might prevent students from participating in the discussion. Talking about sensitive and personal aspects might also discourage students from contributing to the group discussion.



Topics for discussion

The teacher can ask several questions to the students to address the following areas. Note-taking will definitely help the teacher remember the points raised during the discussion. The following questions are just indicative – the teacher can opt for the most suitable ones or decide to enrich them with others that apply in their specific escape room context.

Students' preparation

- Have you had any prior experience playing escape games?
- Do you feel you were adequately prepared for the game?
- In what way could you be more prepared for the game?

Elements of the game

- a. game setting/atmosphere
 - How did you like the game setting?
 - What did you like the most/the least about the game setting?
 - How immersed did you feel throughout the game?
 - If you could add/change something about the game setting, what would it be?
- b. overall gaming experience: at this point the teacher tries to extract as much meaningful and relevant information from each participant as possible. Towards this end, open-ended questions are preferable because they give students the chance to give more personal and relevant answers.
 - How did you feel throughout the game?
 - Which part of the game did you like the most/the least?
 - Which part of the game was the easiest/most difficult?
 - Which part of the game was the most challenging?
 - Which was the most satisfying moment of the game?
 - How would you evaluate your performance?
 - Did you make any mistakes?
 - What was the worst mistake that you made?
 - Were the enigmas consistent with the escape game topic?
 - Were the enigmas consistent with the escape game setting?
- c. specific points on gaming experience
 - How excited/frustrated/anxious did you feel during each enigma?
 - Why do you think you felt like that?
 - How did you deal with your feelings?
 - Were there any mistakes you could have avoided?
 - Did you have specific roles in the group?
 - Are you satisfied with your contribution to the game?
 - What did you like about the game?
 - What didn't you like about the game?

- If you could change something in the game, what would you suggest?
- d. questions on language learning goals
- Has your escape room experience improved your foreign language skills?
 - Do you think the intended outcomes have been achieved?
 - What were the biggest challenges you faced in relation to foreign language learning?
- e. questions on soft skills goals
- Are you better now at decision making?
 - Do you think you were creative enough during the game?
 - Did you listen to your group members carefully and with respect?
 - Did the escape game make you work closely with your group members?

Teacher's feedback on students' behaviour/performance

At this point it is the teacher's turn to take the lead and talk about the students' strengths and weaknesses throughout the game. In addition, the teacher pinpoints the difficulties the students had, explains their reasons, and presents the way they overcame them.

The teacher should inform students about the online questionnaire he/she intends to share with them. It is advisable that the teacher highlights that he/she is not a professional game designer. Therefore, students' participation in the online questionnaire would help him/her to improve this experience and future ones.

Last but not least, teachers should remember to thank their students for their participation in the escape game and sharing their experience with them and their group members.

Lessons learnt from the game



This is a very important part of the debriefing session since it helps students raise their self-awareness. In this part, the group can address some of the following issues and explain what they have learnt in relation to:

- the way they collaborated with each other
- what kind of disputes they had and how they managed to solve them
- the way they expressed different opinions
- the way they responded to other members' different opinions
- how they used their critical thinking/decision making skills/etc. to effectively respond to the enigmas

Further exploitation/evaluation

The teacher might want to further exploit the escape room context or to evaluate the impact the escape room experience had on the students. For this purpose, the teacher might ask students to complete an evaluation form or assign them some homework for elaboration and further practice.

Future ideas/plans

The feedback the teacher gains from the students during the debriefing phase is very useful for future plans. Not only can the teacher modify aspects of the escape room to make it even more immersive, appealing, and effective, but they might also decide to further exploit the use of escape games in several more cases, preferably within a cross-curricular context of teaching and learning.



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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 code: 2020-1-FR01-KA201-080646

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