

# Design Your Own Educational Escape Room

## Overview

An escape room is a physical adventure game in which players are ‘locked’ in a room and have to use elements of the room to solve a series of puzzles and escape within a set time limit. The games are physical versions of “escape the room” video games. Games are set in a variety of fictional locations, such as prison cells, dungeons and space stations, and are popular as team building exercises.

EscapED (part of the GameChangers initiative) has taken the concept of the escape room and repurposed it for use in Higher Education. The emphasis of the educational escape room is not on the learning within the allotted time of the game itself, but rather in the reflective process within the debrief period. The game itself merely provided the mechanism for which to create a rich reflective process.

Here are the core steps you need to take to develop your own Educational Escape Room experience:

## Design

### Step One: Identify Participants Needs

**User Type:** Consider your intended players/users. The premise of this step is that staff may have different needs/expectations than students (learning objectives). Age and backgrounds can influence your decisions in making the game. For example, Media staff and students may be put off from lots of math’s based questions, whereas mathematicians may be put off by physical challenges. Use your initiative and make sure you consider your players to create truly enjoyable experiences.

**Time:** How long do you want your experience to take? Do you want a quick session to run no longer than 15 minutes or something that is more complex that could span hours, days, or even weeks? Setting this early will allow you to judge just how many/how complex your puzzles should be. You don’t want to design the next ‘DaVinci Code’ if the experience will only last 15 minutes.

**Difficulty:** This is where consideration of your intended users should play a part. You might want to scale the difficulty of puzzles for different levels of players such as college students, undergrads, post grads, doctoral students and staff. Alternatively, you could create a series of experiences and label the difficulty as easy, medium, hard and extreme mode, and allow your players to pick and choose what they would like to try. This approach also gives users

an added level of control over their play.

**Mode:** This refers to how the room is to be experienced, for example some video games have a timed versus normal play option. You might want a cooperation mode where players work together to solve the problems, or perhaps a competitive mode whereby the winner is the first player to figure out and meet the objectives. This could depend on both the time, and user type amongst other variables.

## Step Two: Solidify Objectives

The objectives of an escape room can fall into various categories as outlined below. Think carefully about what the purpose of the experience is and how the game might be shaped as a result.

**Learning Objectives:** Just like any other lesson plan or learning experience, escapED requires some thought concerning what are the learning objectives that you are trying to achieve with the session? These objectives can be worked into the theme, its puzzles and mode to help structure the learning plan. Creating tangible learning objectives allows you to evaluate your players learning experience, learning achievements and iteratively re-design if needed at a later date.

**Solo/Multi-Disciplinary:** Will your experience be created to solve problems specific to one discipline, or will they be cross-disciplinary? It can sometimes be valuable to bring students together from different fields to explore problems from different viewpoints.

**Soft Skills:** Interactive live-action games are by their very nature, great tools for helping to develop soft skills such as communication and leadership. How will you challenge your players to develop these in your experience? One method may be to run the experience across multiple rooms, with the answers split between them. The only way to solve this kind of game is for players to communicate their surroundings to the other room and vice versa. The prototype video at the top of this page uses this design.

**Problem Solving:** What types of problem solving challenges are going to make the experience interesting to your players? Remember that all learners are different and therefore will enjoy a range of different challenges. Challenges could be physical (think searching for an item), intellectual (i.e. algebra or math's puzzles), or many other variations.

## Step Three: Develop your Theme

Having a thematic thread which runs throughout the game not only makes the game more enjoyable, but also immerses players into the scenario more fully. A strong theme can make or break the 'fun factor' of an escape room challenge. Depending on your game design there are a range of different theme modes to consider.

**Escape Mode:** As traditional entertainment escape room theme; get out of the locked room in a set time.

**Mystery Mode:** Solve the mystery in a set time.

**Narrative Design:** What is your experience all about? Is it Zombies? Sherlock Holmes? Or perhaps more subject specific, maybe a natural disaster for disaster management

students? The theme which you choose needs to have a compelling story. Good story telling translates into an immersive environment with happy players.

**Stand-alone/Nested:** Is your experience a one off session or part of a larger, nested experience that can run across months or a year? Nested experiences give a great opportunity to allow people to feel like they are working towards something greater but present challenges such as maintaining player engagement across the wider game.

## Step Four: Develop the Puzzles

**Puzzle Design:** The challenging but fun aspect of creating your experience. Puzzles and riddles make your experience interesting and are ultimately what these experiences are about. When setting puzzles make sure you refer back to the learning objectives which you set for the experience. They should reflect the overall goals of the session.

**Instructions/Manuals:** Good experiences have clear, set instructions and rules. This is a good time to make a note of anything you don't want your players to touch or to explain the nuances of your session. Integrating this with your theme can help to set the backstory of your experience. Do the players require extra instructions whilst playing? If so think about additional 'manuals' that can be made up to look like game props.

**Clues/Hints:** Everyone gets stuck once in a while, and good Escape Rooms are notoriously hard. Think about how you are going to give clues in the rooms (if at all) and how you would deliver hints whilst outside/away from the players. Playing a character can help so as not to break player immersion/fantasy. Hints can also be delivered directly via computer/phone to the players if needed.

## Step Five: What Equipment do you need?

**Location/Space Design:** Location, location, location! It really does make an experience, especially if you are expecting to trap people together for a set amount of time you need to ensure there is enough space and it is comfortable to move around in. Don't play the game in an environment where players may get injured. They are your responsibility (we waive all responsibility for injury...). Wherever possible, make the environment as realistic as you can. Again, this helps to immerse players into the experience.

**Physical Props:** Puzzle props, red-herrings and general environment props, these are things that you will need to make a compelling and workable experience. Imagine your experience is the same as a play, you've chosen your stage and now you need to dress it. Be wary of players who will try anything to complete your experience.

**Technical Props:** If you are thinking of using technology to enhance your experience then computers, VR, augmented reality, GPS and location-based identification, can all really bring something to these experiences. The downside is that as with all technology, you run the risk of things going wrong or break. Proceed with caution and ensure rigorous testing with these elements. When they work, get ready to see happy players. When they don't the opposite is true.

**Actors:** Imagine getting on board your University's drama department and letting them help create your experience. Need a zombie or a dying victim? Perhaps a hostage? Either way, having real-life actors helps concrete the experience as further believable. Actors can also

be used as timer indicators or can give out hints if they see the players are getting stuck.

## Deliver

You should now have developed a theme which focuses on a particular element you wish to 'teach', a set of puzzles, and a series of props. The next step is to deliver the experience.

The first thing to do before delivering the experience to the cohort you wish to teach is to test the experience with people who have not been part of the design process. This should help to iron out any problems and allow for a smoother event on the day.

As a general rule of thumb, an escape room comprises of four main elements;

## Briefing

The brief should be carried out before players enter the room(s). A good way to frame the brief is to make it thematic to the experience, for example, if your theme is spy based then you could deliver the brief in the form of a top secret document. The brief should always include the amount of time players have to complete the experience. It should also set any specific rules (i.e. You can touch this but don't touch the fire alarm etc.) as well as any specific technical knowledge the teams may need to complete the experience.

## Play

Playing through the experience is the fun part. Your players by now will know the rules (set out in the debrief) and can be left to their own devices for the allotted time limit. You may wish to set up some cameras in the room and record the actions of the players. In our experience this can prove entertaining for both the players and the game-master.

## De-Brief

The deep learning usually goes on within this process. The debrief acts as an opportunity for feedback on the game from the game-master as well as a run through of how to solve the puzzles. The key part of the de-brief process is facilitating the players into providing feedback on the experience. From our experience the de-brief process can provide valuable insight into things such as team-dynamics, communication, and different ways players approach problems. The game-master should facilitate these conversations and ask the players how this can help them moving forward with their studies.

## Re-Set

If you are running multiple sessions back to back, make sure you develop a re-set sheet. A re-set sheet is a list of all puzzles/riddles and intractable objectives within your experience that need to be checked over to ensure they are in the correct state before the next group. There is nothing more frustrating than getting half-way through an experience to find something is broken or a puzzle not re-set!

## Measure

**Reflection:** You've now allowed your intended players to experience your session and it's the moment of truth. Did they learn anything from your session? If so what? and more importantly did they have fun? What was the most interesting thing? What worked? What didn't? How would they make it better? Talk about the learning objectives and did they feel that they achieved them? A focus group session/feedback sheet may be useful to help gather information.

**Evaluate Learning Objectives:** Here is the time to make a more formal evaluation of the learning objectives that you may have set for your experience. This can be done via your own preferred methods.

**Adjust:** Use the feedback to provide informed decisions on how to adjust your experience if so needed. This is a good opportunity to use iterative design and development or action-led development to help refine your experiences.