

# Radiology Escapes

## *How to Create Your Own Virtual Escape Room*

Adapted from the Radiology Escapes – Virtual Escape Room Team – February 2021



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## What is a virtual Escape room?

A virtual escape room is an online experience in a virtual, video-conferencing setting. A team or group will work together to solve puzzles with the clues presented to them.

## Why an Escape Room?

- Improves social ability and communication
- Piques your senses
- Increases level of satisfaction and happiness
- Create unique memories
- Benefit your time-management skills
- Get into a teamwork-oriented mind-set
- Develop problem-solving skills

## Why Virtual?

- Allows attendees and participants from multiple locations to interact together
- Easily accessible through internet access
- Can engage a larger audience
- Modifications can be done quickly

## Getting Started

### Goals & Objectives

Determine, outline and define your goals and objectives for setting up a virtual escape room experience. Is it to be on a specific educational topic? Is it to provide information for a specific target audience? Are you doing this for fun and recreation, education and learning or a combination of these? Map and align your escape room build-out with these goals and objectives in mind.

### Know & Determine Your Audience

Knowing your target audience is crucial. Determine the educational and training level of your target audience to help dictate the difficulty level, complexity and topic areas of your puzzles. What would be interesting for the group as a storyline? What can they relate to? What storyline will best engage your participants?

### Tools & Components

- Online video collaboration tool examples:
  - Go To Meeting
  - Microsoft Teams
  - Zoom
  - Google Meet
- Room form hosting tool examples:
  - Canvas
  - Google Forms & Docs

- Survey Monkey
  - Jotform
- Clues hosting and display examples:
  - Within the puzzle form
  - Google docs
  - Other document sharing platforms (Box, Dropbox, Onedrive, etc.)
- Registration and notification reminders:
  - Sign Up Genius
- Escape Room Leaders Guide:
  - Provides the information for a monitor to run the room, includes puzzles and solutions/answers, etc.
  - Word doc, .pdf
- Participant and users guide:
  - Provides the participants information on how to register, scheduling and what to expect
  - Word doc, .pdf
- Clues and puzzle components:
  - .jpgs, .gifs, photos, screenshots
  - Posters images, charts
  - .pdf files, word .docs
  - Displayed in-inline or via a shared document program
- Survey tools
  - Pre- and post- escape room surveys used for outcomes, data collection and feedback to further develop and update the escape room
  - Survey Monkey
  - Jotform
  - Google forms

## Storyline, Puzzles & Clues

### Storyline

Develop an overarching theme and storyline for the room. Is something missing that they need to find? Are they “locked” in the room and trying to get out? Is there an emergency or catastrophe that needs to be averted? Relate the storyline to the goals and objectives of the room.

### Puzzles

Puzzles should also relate to your goals and objectives. If an educational goal, use the puzzles as the educational piece. Create puzzles that require different skill types such as math equations, linguistic puzzles, word scrambles, hidden pictures, etc. Find out what the puzzle form tool you are using can do and take advantage of different form items such as multiple choice, fill in the blank, matching, etc. Search the internet for examples of escape room puzzle types and common themes.

### Clues

Clues come in several forms. One type of clue are items the participants would need to solve the puzzle. These clues can be images, Morse code charts, periodic tables, informational atlases/guides, ciphers, etc. If the goal is educational, the goal should be to provide information on a specific topic, provide clues that would assist the participant to solve the puzzle but not “give it away”. Another type of clue or

“Hint” is provided when the participants get stuck on a puzzle. The group attempted to solve the puzzle but are unable to figure it out. These hints can either give the answer or most for the answer to allow the team to move forward. Hints can be provided in-line on your escape room form, or verbally from a Moderator. Remember this is supposed to be fun and educational, and not too difficult to solve.

### Creating the Puzzle Form

Step 1: Define the information or topics you want to present and break it down into an outline.

Example:

1. Info on famous radiologists
2. Types of imaging exams
3. Type of bones / anatomy

Step 2: For each outline item, gather the content. This content would be the puzzle content. If there is a large amount of content, consider breaking it down into two or more puzzles. Make sure to have a subject matter expert available to help with content appropriateness, details and review.

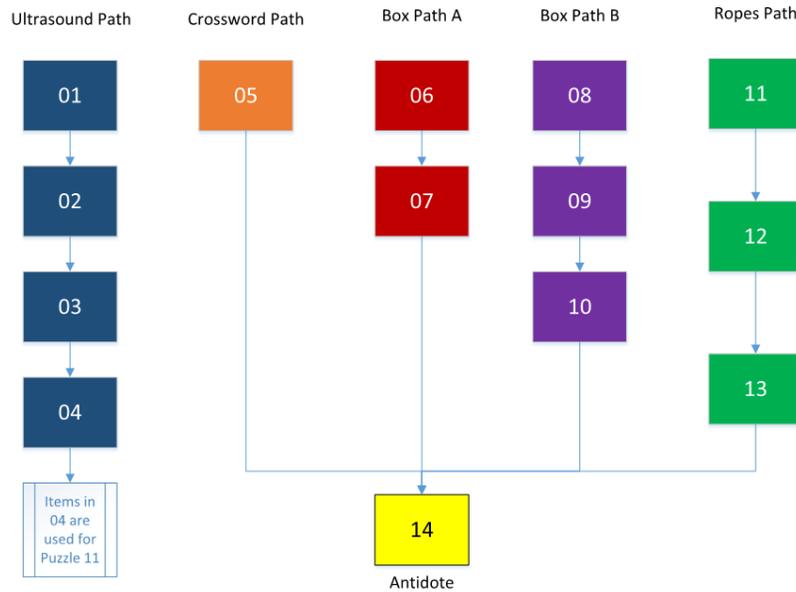
Step 3: Determine the number of puzzles needed based on the content.

Step 4: Determine the type of puzzle based on the content making sure to select different types of puzzles (multiple choice, fill in the blank, matching, etc.). No one want to solve a bunch of multiple choice puzzles.

Step 5: Determine the order of the puzzles. This is where a puzzle “blueprint” comes into play. You may do a linear escape room but allowing choices and options makes it more enjoyable. The blueprint gives a visual on how the participants move through the room and help identify roadblocks and dead spots.

Example:

## Puzzle Map



Step 5: Create the puzzle form using the tool of choice. Incorporate the storyline, puzzles, clues and visuals into the form. Having one puzzle per page of the form allows participant to concentrate on one puzzle at a time. Add images for interest if not part of the puzzle itself.

Step 6: Consider how you want to let the participants know if they are correct or incorrect when solving a puzzle. This may be a function of the tool being used or creating a separate page for those responses.

Step 7: Add conditional branching to the form if the room is not linear.

Step 8: Add fun stuff like a countdown timer, etc if the tool allows such items.

### Testing, Prototyping - Iterating & Updating

This is a critical step. Once the form and clues are ready, gather some colleagues and run through the escape room informally. Watch them go through the puzzle form, see where they get stuck, gather feedback. Then iterate, iterate, iterate! Each time you run a group through you may come out with ideas to make it better. Update a puzzle, fix a clue, etc.

Consider enlisting some beta groups (reflecting your target audience) to go through the experience and provide feedback. Continue to tweak until you are ready for a live rollout to your target audience.

Note: When you are testing and working on iterations, your team should sit in on the escape room tests, taking notes, giving verbal hints when necessary, observing, but not participating in the escape room.

### Documentation

Documentation depends upon how the room will be used. If you will always be the room monitor, then a leader guide may not be necessary. If you will have colleagues help monitor rooms, you may want to

provide them with information on how to run the room, answers to the puzzles, etc. It's helpful to catalog puzzles and corresponding clues and solutions in a document, table, etc. for reference. Make sure to update documentation as you make changes and updates to your escape room.

Items to include:

- Pre-game
  - How to sign up for the experience
  - Scheduling participants
- Day of game
  - Remind participants
  - Go over rules of the game (ex. No online searching, no calculators, no screen shots, etc)
  - Encourage a team lead to run the puzzle form
  - Encourage participation
  - Provide hints and assist as needed
- Post-game
  - Make sure form is submitted
  - Send any surveys
- Provide the puzzle answers
  - Describe the puzzle
  - Describe the clues
  - Describe the answer and how to get the answer

A participant guide, some basic info about the experience may be helpful also. Provide the participants information on how to sign up, how to get on, what are the rules, etc.

Items to include:

- Explain the escape room
- Provide the rules (no internet searches for solutions, no screen shots, no calculators, etc.)
- Provide the introduction to the storyline of the room

### Pre- & Post- Surveys, Outcomes

Pre and post surveys can be used for feedback, attendance or for gathering information. If the outcome is CME, surveys can be used or use the puzzles themselves as part of the CME requirements.

### CME Credit for Escape Room Activities

AMA PRA Category 1 Credit™ can be awarded for participation in virtual, in-person or hybrid escape rooms provided that all AMA PRA core requirements and applicable ACCME requirements are met.

Possible activity formats: Live, Enduring, Other

The “other” activity format is used for blended, new, or unique approaches that do not fall into one of the established activity types.

Providers must identify these activities as “other” in the AMA credit designation statement and include a brief description of the learning format in PARS, in the credit designation statement, and in documentation given to learners (certificates, transcripts, etc.).

The inclusion of the “other” activity format allows educators to deploy new technologies such as simulation, adaptive e-learning, virtual reality, gamification, and social media into their medical education approaches.

Note: You should consult with the CME team within your organization or team to confirm CME viability for your escape room activity.

### Tips & Tricks, Lessons Learned

For the room monitors and moderators:

- Be prepared to moderate and facilitate engagement
- Encourage use of video sharing to improve teamwork
- Make sure participants can get on and know how to share their screens, use the audio/video

For the participants:

- Communicate and coordinate with your team ahead of time to ensure everyone can attend your assigned time slot
- Appoint a team “Leader” that will facilitate the online puzzle form and submit clue solutions
- Every team member should have a pen or pencil and a pad of paper to make notes and calculations
- Ensure you have working audio and video for a video conference
- Practice with the conference tool (Zoom, GoToMeeting, ect) if you are not familiar with it as the leader will need to share their screen
- Be careful not to close the tab with the puzzle form!
- Be sure to click Finish at the end to record your time for the Leaderboard
- Tip – Look at all clues! Sometimes what you need may to solve a puzzle not be obvious at first
- Tip – Appoint a team “Scribe” who will write down and keep track of clues, key words, and phrases, etc.
- Tip – All team members should have the Clues folders and files open on a browser tab to look at and review during gameplay

### Sample and Example Escape Room Data & Documentation

- [ACR Radiology Escapes – Virtual Adventure \(using JotForm\) – Easy Version](#)
- [ACR Radiology Escapes – Leaders Guide document](#)
- [ACR Radiology Escapes – Users Guide document](#)
- [ACR Radiology Escapes – Google Drive folder – Clues and documents](#)

### Notes & Disclaimers

This How To document is intended as an informal guide and suggested roadmap to creating your own version of a virtual escape room based on the experiences of the team at the American College of Radiology (ACR), it is by no means a definitive or exhaustive guide. We encourage you to do your own research and adjust and pivot as necessary to create your own unique experience. The ACR does not have any financial stake or ownerships in any of the software or programs described or suggested in this document. Additionally, ACR is unable to provide technical, logistical or administrative support for any suggested or recommended programs.

## Questions & Comments

- [RadiologyEscapes@acr.org](mailto:RadiologyEscapes@acr.org)
- [ACR's Virtual Escape Room for Medical Students Website](#)