

Simulation Escape Room

W O R K B O O K

A comprehensive guide to planning, designing, facilitating,
& debriefing a successful simulation escape room

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CHAPTER I



What are Simulation Escape Rooms?

Thinking about creating a simulation escape room experience?

Maybe you've recently participated in a public escape room, maybe you've observed a simulation escape room done by another organization, or maybe you're simply here to learn more.

Whatever it is that brought you to this workbook, welcome!

Many know the benefits of using simulation to train healthcare providers and providers-in-training, such as making clinical knowledge come alive, boosting learner confidence, and more effectively transferring learning to the bedside.¹ The benefits of simulation have been proven time and time again, and there is no doubt that simulation can stand on its own as a successful teaching method.

But, for someone (like you!) looking to bring even more fun and creativity to the learning experience, developing an escape room in a simulated environment might be the answer. What you'll find on the following pages is intended to empower you with the information, inspiration, and tools to champion the creation of your own simulation escape room.

We hope this guide provides you with what you need to get started and create your own simulation escape room. And, if you'd like a little more information, you can also visit our [escape room resource page](#).

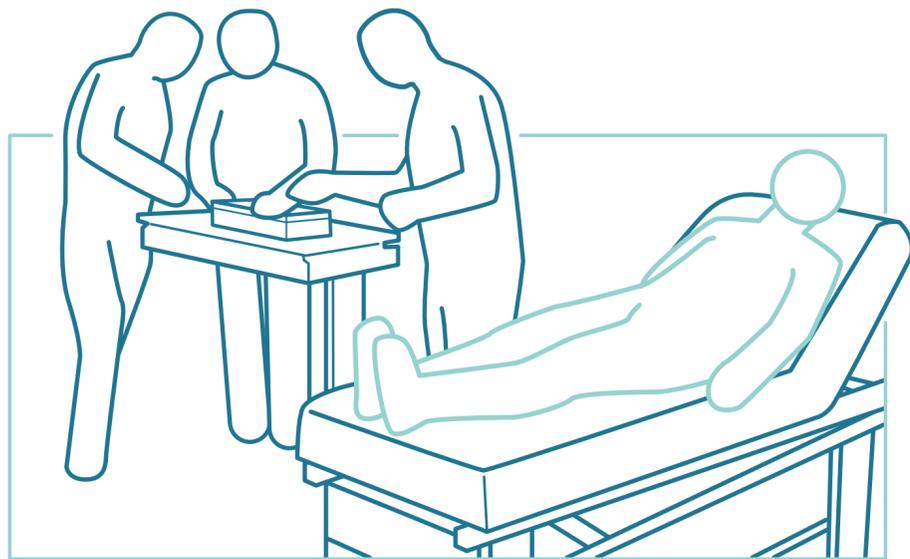
Why are simulation escape rooms so popular?

Part-game, part-theater, part team-building exercise, escape rooms gained worldwide popularity as a group social activity. The number of permanent, public rooms worldwide has increased from zero in 2010 to at least 2,800 today.²

While the general public was primarily interested in a fun way to spend their time, **educators quickly realized the potential that escape rooms have to make learning stick.**

Though game-based learning is nothing new in education, the escape room delivery model is a recent development. And, the melding of the escape room model with simulation training helped accelerate the overall adoption within healthcare organizations.

Like other game-based learning methods, the primary benefit is higher learner engagement. This in itself continues to fuel interest among educators in healthcare.



The Benefits of a Simulation Escape Room

In addition to higher levels of engagement, learners can benefit in the following ways:³

— Competition can pique motivation —

Increased confidence in independent thinking and decision-making

Learning the value of alternative paths of care

Higher rates of retention

Better critical thinking

Stronger emotional connection to curriculum material

An opportunity for feedback and practice

Reinforced understanding of patient safety precautions

Improved ability to delegate tasks and work as a team

Reminder: Simulation Escape Rooms Can Take Many Forms

There is no “right” way of creating or running one.

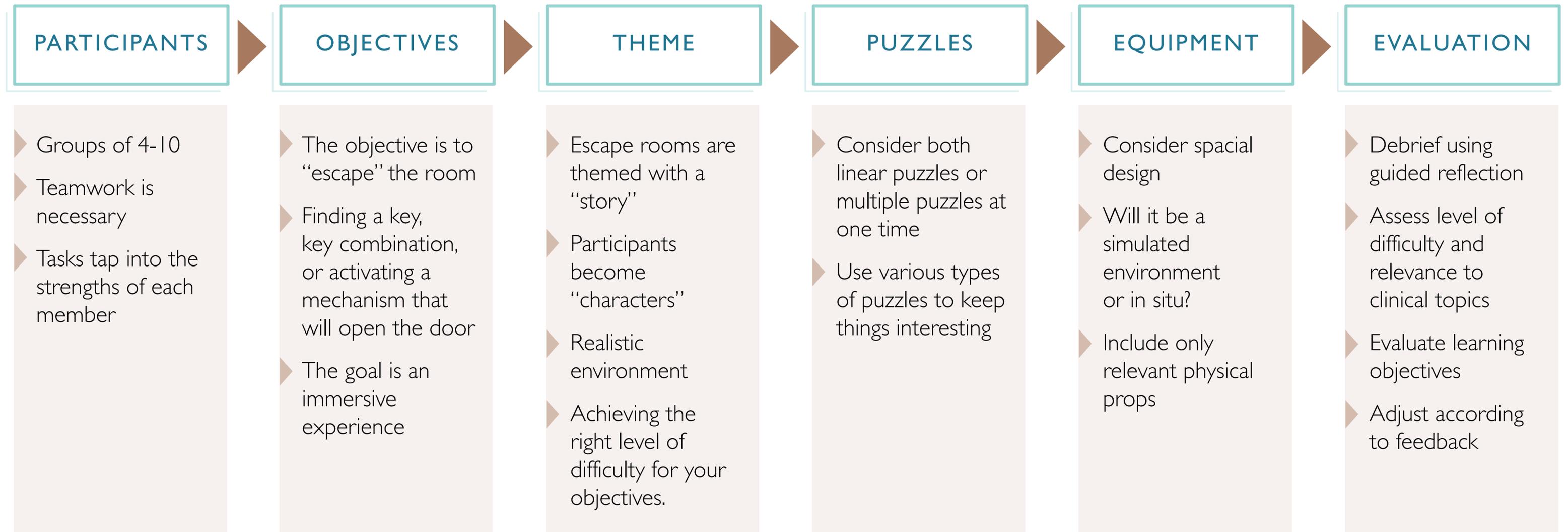
“Simulation escape room” is a broad term – almost as expansive as the number of disciplines in healthcare. **And, there are no limits to how simple or how complex the scenario, setting, patient case, or puzzles should be.**

For example, the following would all be considered simulation escape rooms:

- An on-the-fly simulation escape room with one simulator, only a few puzzles, and minimal set up and breakdown in an in situ patient setting
- A “room of errors” in which learners must identify all potential risk factors in the clinical environment in order to escape
- A permanently fixed room in a simulation center used only for an elaborate simulation escape room experience

Universities, hospitals, and EMS systems have used simulation escape rooms in entirely different ways, and the results do vary depending on the size, scale, and scope of the scenario. However, there are **six essential pillars** that are central to any successful escape room.

The Essential Pillars of a Simulation Escape Room



Who has been successful using simulation escape rooms?



Janine Valko

MSN, RN, CEN

*Simulation Education Manager
STAR Center, Allegheny Health Network*

“Simulation escape rooms are a fun educational experience! They encourage valuable life skills such as teamwork, time management, problem solving and respect and provide motivation allowing learners to connect with the material.”



Jim Behme

*Simulation Center Coordinator
UConn School of Medicine and UConn Health*

“Simulation escape rooms often show a balance between the weaker and stronger learners because of the uniqueness of the tasks in the room, and it ultimately creates a situation where teammates must rely on each other to achieve a common goal.”



Brian Wallenburg

NRP

*Simulation Specialist
The University of South Dakota,
Sanford School of Medicine*

“Students are engaged in an escape room. Whether they escape or not, a team is formed. Just like problem solving in healthcare, minds working together in a group are more powerful than the same number of minds working individually.”

87%

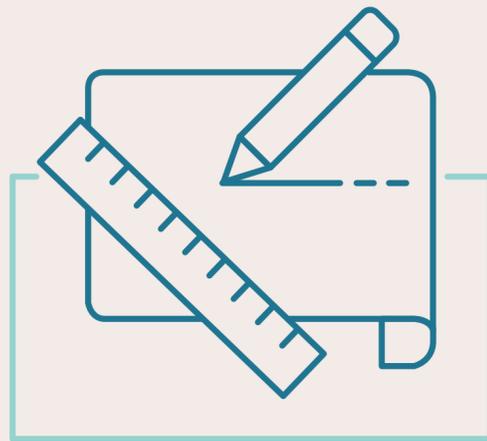
of simulation escape room participants earned a higher score on the knowledge post-test than they did on the pre-test.*

**6^{or}
MORE**

Cohorts accurately completed an average of six more mock code tasks following the simulation escape room experience.*

If you're curious about the different levels of simulation fidelity, you may want to read this article.

Do you have everything you need to create a simulation escape room? Here is a basic list of what you'll need to get you started.



Planning

- Staff or faculty who can support you**
It is possible to create an escape room as a “team of one” but, if possible, gather a group to help brainstorm, set-up, oversee, and debrief the experience.
- Open communication with administration**
As many know, success is often easier to come by with the proper support and open lines of communication.
- Concrete learning objectives**
What are you looking to impart on your learners? What is the desired outcome you're seeking?
- A physical space**
The room in which participants must escape.
- Boxes and locks**
Include at least 3 locks to make it more fun. ABC, 3 digit, 4 digit, directional locks are all great options!
- The right level of simulation fidelity**
As mentioned earlier, this might be a high-fidelity/full-body simulator, a low-fidelity trainer, a standardized patient, or potentially even an unmoving patient solution. Gauge what level of fidelity is feasible for your budget/program and will help you meet your learning objectives.
- An “Escape Grid”**
To ensure consistency, outline all steps and triggers that will eventually allow learners to escape.
- Recording capabilities**
While not always necessary to achieve your learning objectives, the ability to record and replay the scenario will make for a stronger debrief at the end.
- An open mind!**
Simulation escape rooms are an opportunity to bring every ounce of creativity to the simulation table. Don't be afraid to step outside the box or to try an idea that seems “far-fetched.”

Set Your Objectives

The SMART Goals model is the simplest way to develop concrete learning objectives. If you haven't narrowed down the learning objective(s) for your simulation escape room, this template can help to guide you.

Specific	What exactly will be accomplished?	
Measurable	How can you quantify or qualify that this goal has been met?	
Attainable	Does the goal require the right amount of effort? Are the resources available? Do learners have the necessary skills?	
Relevant	Why is this goal significant?	
Timely	How long will learners have to complete the tasks? What is the deadline or time restraint?	

How to Outline Your Escape Grid

If you haven't begun to outline the escape route your learners will follow, use the following chart to brainstorm. The first row is completed as an example.

Patient Status	Escape Room Sequence	If learners do this...	Then, this will happen...
Patient history/ background info necessary to scenario	Patient says, "I am light-headed, and I feel dizzy when I sit up"	Learner assesses vital signs	Learners find a clue on patient's carotid pulse

CHAPTER 3



Designing

How to design and build a simulation escape room

You've already outlined your Escape Grid, but it can be helpful to expand on this and write a detailed case scenario. Having a complete patient profile and guidelines will ensure that all facilitators and instructors are on the same page. This checklist can be helpful in outlining what information to include:

- Estimated scenario time
- Estimated debrief time
- Required number of participants
- Patient name, age, and gender
- A summary of the suggested scenario progression
- The educational rationale behind the scenario
- Room setup instructions
- Simulator setup instructions
- Equipment and drug checklists
- Story to provide to students
- Clinical signs immediately visible
- Additional medical history
- Proposed correct treatment
- Scenario flow diagram
- Pre-briefing to the instructor
- Pre-briefing to the students
- An assessment to record whether a task was or was not performed
- Debriefing outline
- Technical and setup contact information

Developing simulation escape room puzzles

The puzzles and clues are what bring a simulation escape room to life and differentiate the experience from a standard clinical simulation. Remember to use relevant props, be creative and have fun! If you're stumped and need a bit of inspiration, you can refer to our list of various ideas below.⁴

- Combination locks
- Padlocks
- Hidden objects
- Pattern matching
- A numbered sequence on syringes
- Cryptograms
- Riddles
- Use of a blacklight flashlight and ink
- Written codes on x-rays
- Acrostic poems
- Using magnets to retrieve items out of reach
- Mazes
- Jigsaw puzzles (with up to 12 pieces)
- Locked crash cart

Puzzle Types to Avoid

Simulation escape rooms should be fun, not frustrating. Experts caution against using the following types of puzzles because they can negatively impact the learning experience:

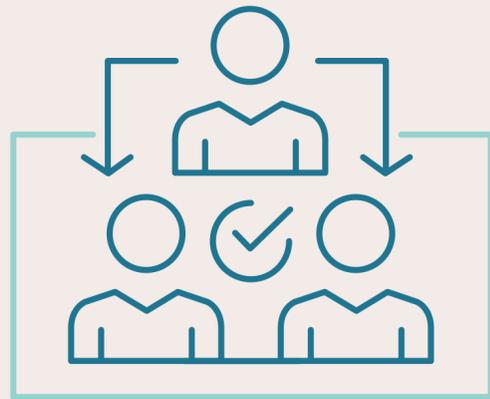
- Trivia** 
- Arithmetic** 
- Puzzles without one definite solution** 
- Technology that may be finicky** 

Use this space to jot down your puzzle ideas and clue sequence:

Puzzle #	Puzzle Type	How can the puzzle be solved?
1	Riddle & combination lock	The phone to call the code is locked in a box. The combination code to the lockbox can be found by solving a riddle posted above the phone.

Here's an example

CHAPTER 4



Facilitating

How should roles be assigned?

You may be a one-person band, creating the escape room and executing it start to finish. Or, maybe you have designed the escape room, but you will not be the one leading it. If that's the case, you're likely wondering how to divvy up the roles and responsibilities. Use this generalized grid to divide and conquer.

Designer

- ✓ Creative-minded with a firm understanding of simulation pedagogy
- ✓ Works with instructor to write a case scenario that meets curriculum objectives
- ✓ Leads all testing, including personally testing all puzzle components

Instructor

- ✓ Clinical expert who will impart prerequisite knowledge to learners
- ✓ Collaborates with Designer and Facilitator, making sure material reinforces optimal patient care practices
- ✓ Aids learners in developing mastery of topics and skills

Facilitator

- ✓ Clinical expert who will oversee participation in the simulation escape room
- ✓ Sets up and breaks down the physical space and puzzles
- ✓ In charge of pre-briefing the learners, running the live simulation escape room, and leading the debrief

****Always Remember to Beta Test!****

For some organizations, depending on the number of available faculty members, the above roles can overlap or responsibilities can be further divided. Regardless of how many helping hands are involved, never forget the importance of all team members walking through a beta test. Do a test run of the simulation escape room before going live, keeping an eye toward parts that might cause confusion, irrelevant puzzles, time-consuming tasks, and flaws in the "story."

Facilitating the simulation escape room experience

While learners are in the simulation escape room, the facilitator's or instructor's primary responsibilities are to observe them and to keep time. You can be successful by following a few simple guidelines.

To Observe Closely:



- Advise any onlookers that questions can be taken at the end. *You'll want as few distractions as possible while you watch the participants.*
- Keep track of what tasks learners perform or skip on an assessment rubric.
- Make additional notes if something happens that you'll want to remember during the debrief. *If you are video recording the experience and there is an option to timestamp an event, use that feature!*

To Manage Time:



- Pay close attention to time during the beta test! *Make sure that the time allotted matches the amount of time it takes to complete the tasks.*
- Set the time restriction and advise learners before the activity commences.
- Run a stopwatch on the in-room laptop or monitor.
- Set incremental alarms and provide reminders to learners as they go off.

CHAPTER 5



Debriefing

Leading a simulation escape room debrief

When your learners complete the activity, they will be excited to talk about what has happened. Leverage their excitement and transition immediately into the debrief while the experience is fresh in the participants' minds. However, just as with any simulation debrief, there are a few guidelines to keep in mind.

- ✓ Debriefing allows the dissemination of active learning to every member of the group in a safe environment.
- ✓ Led by a facilitator, the debriefing process enables participants to more fully think through and discuss what has transpired.
- ✓ The facilitator's role of structuring a seemingly unstructured discussion is paramount to the effectiveness of the debrief.
- ✓ Individuals must be given the space to process their reactions and feelings related to clinical situations.
- ✓ ***Participants should do most of the talking.***

Wondering which questions to ask during the debrief?

For some, it may be difficult to know what questions to ask following such a fun and exciting learning activity. Fortunately, the debrief can follow the same format as a standard clinical simulation (asking learners for their thoughts, strengths, weaknesses, and suggestions for improvement).

Use these 5 fool-proof questions to guide your discussion:

- 1 Were you satisfied with your ability to care for the patient(s)?
- 2 What was done well and what could have been handled differently?
- 3 What did you learn?
- 4 How could this simulation experience be improved?
- 5 Is there anything else you would like to discuss?

Interested in learning more about these 5 debriefing questions? [Read more >](#)

How to use video technology to amplify your debrief

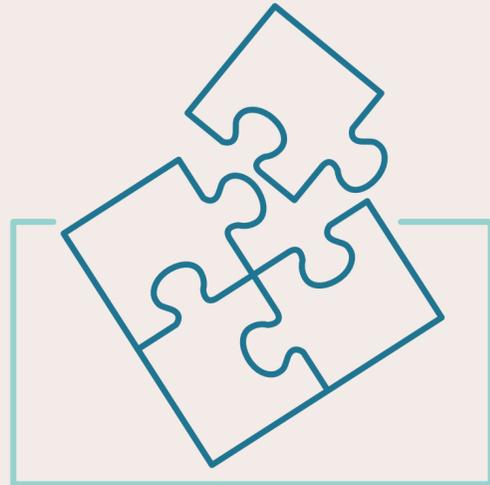
Though video-recording is not necessary to lead an effective debrief, in some cases it can add to the learning experience. For simulation escape rooms, video capabilities can allow learners who are not participants to observe the room without disrupting the “story.”

Video-assisted debriefing can help facilitators more objectively measure performance, highlight certain observations, and clear up any confusion surrounding a task.

Here are some helpful questions to ask when comparing video debriefing solutions:

- Does the solution capture video, audio, annotations, the patient monitor, and simulator data?
- Does the solution showcase the recorded data in a single, easy-to-review interface?
- Is there some level of automation built into the equipment and cameras?
- What amount of post-event reporting does the solution offer?
- Is the system reliable in a hospital environment (when running in situ simulation escape rooms)?

CHAPTER 6



Putting the
puzzle pieces
together...

Now that we've walked through all the steps involved in running a successful simulation escape room, it's time to put it all together and get to work.

Check out our mock shopping list that includes some essential low-budget items, then create your own list.

Mock Shopping List (On a Budget)

Simulation Equipment:

- ✓ Patient bed
- ✓ Simulator/Standardized patient/Task trainer
- ✓ Patient monitor
- ✓ Patient chart

Puzzle Pieces:

- ✓ Plastic bin, toolbox, or lockbox (\$10)
- ✓ Combination, keyed, or bike lock (\$5)
- ✓ Color-coded tags (\$3)
- ✓ Zip ties and scissors (\$8)
- ✓ Popsicle sticks (*to create coded messages*) (\$1)
- ✓ Velcro (*to hide objects*) (\$10)
- ✓ Blacklight flashlight & pen (\$10)
- ✓ Holiday string lights
(*to light up the exit when all tasks are completed*) (\$5)

Your Shopping List

Based on the scenario and puzzle pieces you developed earlier in the workbook, add items you will need to purchase or collect to the list below.

SIMULATION EQUIPMENT:

- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____

PUZZLE PIECES:

- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____

ADDITIONAL ITEMS:

- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____

Tips for Success!

As we wrap up, here are some final words of advice:

- During the design phases, keep circling back to your original learning objectives.
This is the surefire way to stay on track!
- Include small clinical tasks and knowledge checks in the puzzles.
- Make sure the puzzles are all connected to each other and to the overall theme.
- Watch the clock closely. *It's important to stick to the time limits set.*
- Recognize the participants and how they've overcome their challenge.
Certificates go a long way!
- Stay focused on the learners' experience and keep it fun!

And one last reminder: The expert in anything was once a beginner.

Additional Resources Available to You

LINKS

If you'd like to learn more about simulation escape rooms, visit

[Laerdal.com/SimulationEscapeRoom](https://laerdal.com/SimulationEscapeRoom)

Interested in reading more content like this? Subscribe to Laerdal's emails [here](#).

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