Design Process

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THINK FAST: Players in an escape room must solve puzzles in a set amount of time.

ESCAPE ROOM DESIGNER

Scott Nicholson dreams up puzzling problems for players to solve

GAME MASTER: Nicholson at the Red Bull Escape Room World Championship in 2017

"THE BEST PART IS SEEING PEOPLE PLAY." —SCOTT NICHOLSON

GROWING UP ON A FARM IN OKLAHOMA, Scott Nicholson spent much of his free time playing board games. "We didn't have neighbors," he explains, "so I acted as every player. I learned the games' mechanics and then made my own variations."

Today Nicholson is a professor of game design at Wilfrid Laurier University in Ontario, Canada. He studies how gaming helps people learn. He also designs new games—with a focus on escape rooms.

An escape room is a game in which a team of people are typically trapped in a room and must unlock a door to escape. To do this, players need to search their surroundings to discover clues and solve puzzles. "These experiences reward thinking, communication, and teamwork," says Nicholson.

Developing games involves a lot of hard work. The process requires multiple rounds of observing, creating, modifying, and testing. Nicholson spoke with *Science World* about how he built a career out of finding new ways for people to play.

How did you get into creating games?

I've been making games all my life. As a kid, I developed computer games using an early programming language called BASIC. I also played *Dungeons and Dragons*, a fantasy role-playing game in which players create their own unique characters and act out adventures. I designed quests for the characters to follow.

In college, I studied math and computer science, and later got a Ph.D. in *information science*—the study of how information is collected and used. I worked as a university librarian and researched libraries' roles as community hubs for gaming. In my spare time, I developed board games, including *Tulipmania 1637* and *Going, Going, GONE!* In 2005, I started the first YouTube series about board games, *Board Games with Scott*, to share with viewers how to play new games.

In my current position, I teach game design. We worked on our first escape room after having a guest speaker visit from Fort Stanwix, a Revolutionary War-era historical site in New York State. I realized that the fort would be a great place for an escape room. We had players take on the role of spies from the time period and learn about the fort's history by solving puzzles.

My students and I later designed a room in the 2017 Red Bull Escape Room World Championship. Players had to solve a mystery set in a computer hacker training camp.

How do you design an escape room?

I start by deciding on the genre (type of game) and setting (where it takes place). I outline the players' goals and the obstacles they'll face. These decisions let me create "beats," or major points in the game's narrative. Next I start thinking of challenges—math and word puzzles, searching activities, or physical tasks—that could fit within the story. We want a variety of challenges. That way, every player gets a chance to solve something and feel like a hero.

I work with a team. We sketch out ideas on paper or using digital drawing tools and 3-D design programs. Once we have our *prototypes*, or early versions, of the puzzles, we test and rework them. This process is known as *iteration*, and it's the most important part of game development. The next step is to construct the actual room that will make players feel immersed in the game.

How do you make sure the escape room is ready to welcome players?

We do more iteration to see how well the puzzles work together. This allows us to see problems that might not be obvious when testing puzzles individually. For example, players may mix up challenges by accident if they're too similar.

What are the most challenging and rewarding parts of your job?

The hardest part is finding the right level of difficulty for the puzzles. If a puzzle is too hard, it's frustrating for players. But if it's too easy, there's no sense of accomplishment when someone solves it.

The best part is seeing people play. It's really delightful to watch people tap into their inner child and have fun. ✺

—*Hailee Romain*

THE GREAT ESCAPE: Players compete in the 2017 Red Bull Escape Room World Championship.

JOB PROFILE: GAME DESIGNER

Salary: about $85,000 but varies widely based on game type

Educational Requirements: A degree in game design, engineering, programming, or art can be useful. Strong writing skills are key.

Gearing Up: Play board games, role-playing games, computer games, or playground games. Join gaming clubs. Use online tools like Twine to create interactive narratives. Design a scenario for a role-playing game, use pencil and paper to draw a board game, or build a cardboard escape room for your family.

BRAIN TEASER: Nicholson with an escape room piece

SOURCES: SCOTT NICHOLSON, GLASSDOOR.COM

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