

Design of an Escape Room Game: Practical Clues and Ideas for Librarians

Kaçış Odası Oyunu Tasarımı: Kütüphaneciler için Pratik İpuçları ve Fikirler

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Abstract

Escape rooms, an increasingly popular gaming tool today, are playful designs centered around a specific theme or scenario, designed to trigger emotional components in players, including excitement, suspense, a desire to explore and solve puzzles, and a motivation to succeed. Escape rooms challenge players to progress through the game flow within a mysterious gaming adventure, completing tasks, solving riddles, and puzzles within a given time limit. In escape rooms, the player's primary motivation is based on their desire to succeed and their determination to escape the room. The game can sometimes involve a single room or multiple rooms. Escape rooms are used as a gamified pedagogical tool to facilitate interactive learning in educational and learning environments, as well as in information centers such as libraries and museums. This study aims to provide practical tips and ideas for designing escape room games that cater to the evolving educational landscape of the 21st century, particularly in libraries and museums. Within the scope of the study, the escape room design idea of the research titled “ALPHABET DETECTIVE: Saving the Alphabet in the Ancient Library” was shared.

Keywords: Escape Room Game; Library; Museum

Introduction

Designing user-centered designs and services for university library users is essential to enhance their inclusion. Escape rooms are live puzzle games where players are locked in a room, need to find clues, and solve puzzles to escape the room. Establishing an exciting atmosphere is significant, as it will be a new experience for the user (Claunch et al., 2023). They are situationally themed with participants solving some mystery. An escape room is a live-action experience in which a group of people is locked inside a room and must work together to break out. Once inside, participants are presented with an array of puzzles, clues, and riddles that, when solved, will allow them to escape. Over the years, these recreational activities have become increasingly popular (Fountaine, 2020). Escape rooms are an excellent avenue for entertainment. By design, they are mysteries needing to be solved. Often, they require participants to search a designated area for items and clues physically and to solve riddles, puzzles, and other conundrums to “escape” the room (Claunch, 2023). Archeology dig, haunted house, bank/vault heist, prison break, lab accident, sinking submarine/boat, con artist theft (Wolph et al, 2018).

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The design of an escape room is a collaborative effort, and it requires a dynamic team. While playing the game, groups of librarians should accompany the players and guide them. According to Kapp (2012), an escape room game should encompass various game components, including goals, rules, conflict, competition, cooperation, time constraints, rewards, feedback, levels, storytelling, curiosity, and repetition. The best way to begin the design stage is to create a flowchart of your game and its puzzles, plan the stories within the game, outline the conflicts, challenges, and competition process, and define the game rules.

- The game scenario should be written, and the game targets should be set. Creating a good, interesting game storyline is significant. It is the key point that should attract the attention of your target group. The story should be basic, understandable, and short. Otherwise, the attention of the target group might be distracted.

Example:” *You are trapped in an ancient library in Trinity College. The walls echo past lives. You hear the voices of the oldest librarians who have walked through the corridors of this ancient library. There are lost memories in the library. In each lost memory, there is a clue. Each clue will help you to exit the library. Are you ready to travel back in time? Find the clues in old memories through time travel. History will help you to solve the riddle.*”

- Adding mystery and fantasy to the game is another key dimension (Escape Room Geeks, 2024). Mystery is the inviting feature of the game that adds cheer, enjoyment, and eagerness to discover. If we want our target group to proceed with the game flow, enabling them to feel the ecstasy of joy and delicate sentiments.
- Adding a component of pressure and locating challenges is another significant aspect within a game flow. Adding time limitations and setting deadlines for tasks will contribute to creating excitement (Escape Room Geeks, 2024).
- To prepare an immersive game flow, creating puzzles is crucial. Puzzle themes can include a spy mission, a haunted house, a lab experiment gone wrong, an ancient library concept, or an ancient tomb. Cipher puzzles that use a hidden message in Morse code can be employed. In addition, puzzle boxes can be prepared within the frame of the game. Jigsaw puzzles and pendulum magic can be added.¹

Example on the use of a pendulum:

Pulling the Hidden Key with a Magnetic Pendulum

A metal ball (or magnet) that swings like a pendulum hangs from a string, a magnetic switch (inside a plastic tube) is located beneath or behind the floor. Players must swing the pendulum in the right direction to remove the switch or drop it into place. Players can use a clue, such as a map, diagram, or compass, to determine the direction of the pendulum.

¹ A pendulum is a weight suspended by a rope or chain that moves back and forth or in a circular motion. In an escape room, this motion can be used to trigger a mechanism, reveal hidden text or shapes, or reach a specific area.

Revealing a Password with a Pendulum

The password written in UV paint on the table is usually invisible. The pendulum has a UV light at its tip. Players slowly reveal the password by swinging the pendulum in a specific direction. As the pendulum swings gradually, the UV light makes the writing visible at regular intervals. Players can unlock another lock by reading the password.

Example of Using a Puzzle Box

A riddle can be placed inside a box. When the players solve the riddle correctly, a key will be given to them to open the gate of the second room.

Example riddle: *“I have cities, but no cities and towns. I have hills, mountains, but no flowers and insects. I have oceans and seas, but no ships and fish.”* (Answer: MAP)

- Creating tasks is another significant phase in escape room design frameworks. It has the strong potential to enrich and shape the learning experience. Tasks should be scenario-based and include challenges, with a time limitation. Players should be

Task and Activity Examples

Scent of the Book

“Each book from a different era has a different scent. Victorian-era books are filled with the scent of lavender. Are you ready to discover which era of the book? Let’s solve the puzzle by discovering the scents. A time traveler has brought books from different eras to the present day, but has mixed them up. Finding the era to which each book belongs means unlocking the key to the past. Each era carries its own unique scent” (During the design process of the task, scent cards are located between the pages of the books.). *“Your mission: “Match the books to the correct eras based on their scents and reach the final key.”*

“Smell the books and match with the era”

Lavender → Victorian Age

Rose water → Ottoman Period

Pine resin → Viking Age

Sandalwood → Medieval Age Indian Manuscripts

Tobacco → American Novel of 1920s

The example shared above can be adapted to various escape room designs. The idea can be enriched and revised according to the type of library game that will be played.

Players are requested to guess the period by smelling the books and reading the clues contained within (e.g., a poem, date, language style).

Live Book

Live Book is another idea that can be implemented in libraries/museums as an interactive learning experience.

“Ask me who I am. Scan my QR and I will tell you about my story. If you are curious about my story and me, I will tell you. If you are looking for the clue, the clue is hidden in the story. If you are a good listener, you will discover the code:)”

Alphabet Detective: Saving the Alphabet in the Ancient Library

Within this study, the design of ALPHABET DETECTIVE: Saving the Alphabet in the Ancient Library game was introduced. In this part of the story, scenario and game tasks were given.

Scenario and Story of the Game

It was designed as an escape room game. The players will be requested to find the “Lost Alphabet” in the old and dusty shelves of the old library. The game scenario is flowing as follows:

“In the time machine, we have travelled to another time span on another planet in the universe. On this planet, no one speaks any of the languages used in the world. We do not know in which era we are, and we do not have any knowledge about the alphabet they use. The time machine has brought us to an ancient library, which preserves the map of this new planet we inhabit and the alphabet of the civilization that lives here. Your role is to follow all the instructions, clues, and solve the puzzles. When you manage to fulfill your duties in all the rooms of the ancient library, you will get the magical key to the Secret Room. Now, the time is running out.”

“The language is unknown. The letters are undefined. The knowledge is unknown. The only way to survive: to make sense of it. If you don’t start to discover and learn the language, your destiny will be to get lost in the dusty shelves of the library. You should be quick. Do not forget that you will encounter symbols and signs in each room that provide clues and hints about the alphabet of this alien civilization. These symbols and signs will give you some idea about the culture, geography, traditions, and lifestyle of this alien civilization.

At the beginning of the game, players are (two groups, each group has three persons) invited to the Starting Room. (It can be any room in the library you can choose. However, the room should be designed mysteriously. In this game, the Alphabet and a map of the alien civilization are lost. To survive on this new planet, players should complete all the tasks given in each new library room. Players have to follow the clues in the library. In different sections of the library, there are clues. They are located behind the paintings, in the reference desk, and between the shelves. Every point can be used to locate the clues. In the First Room, players start the game. This room was specially designed. Players should be requested to examine the room. The following note should be given to the players:

“When the time machine stops, a profound silence falls around you. Not a bird's song, not a breath of wind... Just a heavy void swallowing your existence. The place you set foot on belongs to no world you know. The sky is filled with star dust. You are not familiar with it. The

smell of the star dust is everywhere. Time is non-linear here. Past, present, and future are flowing into each other. There are moments when you feel as if the past and future are the same. There are moments when you can travel to the future. Now, gigantic library doors are opening. On its door, an inscription carved with unknown symbols reads: -The one who knows the alphabet will be saved. This is the Ancient Library, holding the ancient wisdom of the planet. Feel the serenity. Feel the echoes of the past, future, and now. Feel the moment. Touch the walls and hear the messages."

Tasks in the Game

Level 1: Card Game (Matching the cards)

On some cards, concepts are given. On the other cards, definitions of the cards are given. Players are asked to match the concepts with their corresponding definitions.

(Concepts: Information literacy, information retrieval, call number, dark web, self-check, media literacy, LC classification system)

Level 2: Book Face

Sharing a photo on the library's Instagram page with the book cover (The book can be an autobiography or biography, having a picture of a person)

"Along with the clue you just uncovered, there's a book—an old one, with a striking cover. To proceed, pose creatively by matching your face or body to the book cover to create a playful illusion. Let the book become part of you."

"Take a photo using the book cover—make sure it blends with your face or body."

"Share the photo on your Instagram, tagging our library's official account."

"Show your post to the game observer."

"Only then will you receive the next clue on where to go in the library."

Level 3: "Who am I?"

In this part, the players will be tested on their knowledge of the librarians working in different sections of the library (They visit the library, borrow a book, but the question is whether they know the librarians and their duties). In this part of the game, the librarian will give a question card to the player.

The statements below are given to the player:

The question is as follows: *"Who is the librarian at the reference desk? What is his/her role?"* *"(The question can be multiplied according to the sections of your library). Look around. Somewhere in this room—or perhaps in your mind—is the answer."*

"Your mission is to solve the riddle."

"Once you know who or what it refers to, tell the observer. If you're right, the next clue will be revealed."

"You should look around. The librarians might be carrying your clue as well."

Level 4: A Journey Between the Cities

First task: “You should make a catalogue search on Greece and find the book on the shelves.”

Second task: “You should make a catalogue search on Egyptian History and find the book on the shelves.”

If players do not know how to perform a catalogue search, they can ask a librarian for help. But in this game, there is a time limitation. Asking the librarian and learning how to make the search will take time, but it is up to the decision of the group.

The players will be given clue cards on which section of the library to go.

Level 5: Information Verification

In this part of the game, players are given misleading and suspicious cases, social media posts, or fake news. They are requested to verify the data and news.

“Restore the truth and uncover the source of the misinformation. Your clues are hidden across the library.”

- An article with a suspicious quote—but who actually said it?
- A social media post with an image—can you trace its origin?
- A news video—can you spot the editing trick
- A headline that contradicts historical records—can you find the original?

To complete your mission, you must compare articles across different sources.

Use date-checkers, information verification web sites and reverse image search tools.

Level 6: Treasure Hunt

On a certain shelf number, duty is hidden. The call number of the shelf is given to the players, and among the books, they can find the riddle or puzzle. (You can see the book using the shelf number written on the catalog card.)

In the puzzle, there are questions: (There can be different answer cards. The players can choose the correct options.)

1-To whom does this image belong?

Albert Einstein

When was the first Eurovision song contest held?

(1956)

2-How many members are there in the European Parliament?

(720 as of 2024).

3-What does P mean in the LC classification system?

Level 7: Dewey Challenge

Players will find the books which were classified according to the Dewey Classification System according to the clues given.

Table 1

Example activities

Title of the Book	Clue
“Short History of the Time”	“Dust of the universe is hidden in the star dust”
“Renaissance Art”	“Secret hand touch portrayed the God”
“Fundamentals of psychology”	“Let’s go to your inner world. Are you ready to discover the inner yourself”
“Libraries and Knowledge”	“The scent of knowledge is hidden in the silence”
“Diet and Health”	“The remedy lies in the unprecedented unity of nature and science”
“Fundamentals of Economy”	“It questions the money”

Level 8: Hunting for Puzzle Pieces

Break a quote or a map into 4–5 puzzle pieces and hide each piece inside different genres (e.g. fiction, history, art).

Level 9: Photo Hunt

The librarians should give the photos of the places (reference desk, entrance of the library, shelf, certain call number, or a certain chosen spot in the library). Players will be asked to visit these locations and locate the quizzes.

Level 10: The librarian needs help

It is a busy day in the library. All librarians are rushing in the library. Many books have to be classified according to the LC classification system.

Your task is *“Some books are waiting for you. You need to classify them according to the LC Classification System. If you do not know the LC classification system, you can apply to the Educational Box. There are LC cards in the box. They may help you. You can use them as a guide.”*

“After getting the cards and having the relevant information, go to the special table and the books are waiting there.”

Book titles are as follows: “German Law”, “Charlotte’s Web”, “The Second World War”, “The Silk Roads: New History of the World”, “The Natural History Book: The Ultimate Visual Guide to Everything on Earth”.

Level 11: Plagiarism Master (The library detective is after you?)

Five short paragraphs are given to the players. Two of them should be cited correctly. In one of the paragraphs, the citation will be correct, but the reference will not be given in the references list. Two of them will be copied from a resource but not cited.

“Are you ready to identify the plagiarism, and do you want to cooperate with us?”

Once all levels are completed, players are directed to the final room of the game. They will follow the clues and are supposed to find a special note indicating where the lost alphabet and map are located. They will go to the Secret Room to see the map and alphabet. The player group that completes the game levels faster will win the prizes.

Results

This study provided practical insights and ideas that can be utilized and adapted as an interactive and educational tool, leveraging entertainment and motivation. These interactive learning designs combine gamification methodologies, frameworks, and experiential learning methods. Escape room designs aim to improve the problem-solving skills of users, triggering emotions such as excitement, curiosity, and a desire to achieve and reach targets. Escape room designs framed as information literacy games improve the information literacy skills of users and contribute to the process of library orientation.

As an escape room game, “Alphabet Detective: Saving the Alphabet in the Ancient Library” enables users to experience the process of information seeking, cataloging, verification, classification, and utilizing information in an ethical manner in a fun and gamified way. Gamified tasks and game challenges, based upon a story, invite the users to discover the game and interact with the tasks. In the pursuit of solving the puzzle and understanding the tasks, the users engage in creative exploration, critical thinking, and collaboration.

In conclusion, escape room games are learner-centered game designs and frameworks that support the learning process of individuals. They can be used in different library types, and the theme of the escape room games can change according to special days or different contexts selected by the library. The game rules, scenario, and game flow can also be determined based on the special design of the library. This will enable libraries to promote their services while creatively enhancing user interaction and engagement.

Permission and Contribution Statements

Ethics Committee Approval

The author declared that the article did not require ethics committee approval.

Authorship Contribution

Demet Soylu: Idea/Concept, Conceptual Background, Game Design and Writing, Writing Escape Room Game Rules, Writing, Evaluation, and Review

Tunç Durmuş Medeni: Conceptual Background, Game Design and Writing, Writing Escape Room Game Rules, Writing, Evaluation, and Review

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