



# Designing escape rooms

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What game is an escape room?

## Mechanics of escape rooms

- Unlocking *locks* and opening *doors*.
- Finding and using *keys*.
- Solving *puzzles*.
- Collecting *clues*.
- Leaving in *time*.
- Asking for *hints*.

## Rules of escape rooms

- Locks and doors serve to split the game progress to parts.
- Each key unlocks a lock.
- Solving a puzzle advances the game.
- Clues and keys are collected from various places in the room.
- Every puzzle should be solved using the right clues.
- To win the game, players must leave in time.
- Players may ask for additional hints.

- According to *Fourteen forms of fun* typology, **intellectual problem solving** is the prevalent form of fun in escape rooms.

Additional forms are:

- **Social interaction** – players are working together,
- **Discovery** – discovering clues, puzzles, story and backstory,
- **Advancement and completion** – completing puzzles, advancing in story.

Also, depending on room style and form, there are also these aspects:

- **Beauty** and **immersion** – in rooms with strong atmosphere,
- **Competition** – if players are competing with time of other groups,
- **Thrill of danger** – depending on theme and story.

## Players

- 60 % of players are 16 to 34 years old.
- Group sizes vary
  - There are pairs, small groups (~ 3 to 5 people), and even larger groups (~ 10 people; mainly schools and company teams).
- For larger groups, bigger rooms and more puzzles are needed.
  - Outdoor escape rooms are more suited for these.
  - Parallel rooms are also possible.
- It is never a single-player game.

What is the design process?

- Theme sets an environment for story and puzzles
- Theme can be place in world or time in history, or some fictional world
- Theme can also be a type of story or moral of the story
- Theme can be described in words, but for further work, mood board is usually created.

Mood boards:

- ▶ Contain images (and, sometimes, sounds) that refer to the theme.
- ▶ Help design team familiarize with the theme.
- ▶ Steer further design choices, story, atmosphere, puzzles.

# Mood board: Example

1 Different types of one point perspective that I want to create for my concept art

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5 Different styles of brushes I could use for my concept art.

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7 These images show the different styles of alien worlds I could do for my concept art.

8 This image gives me inspiration to do an open plain with mountains in the background of my concept art. For the backdrop I could use a planet or a colour space with a nebula

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11 In my GDD I mentioned the player would visit a cave system on the alien planet so I could do concept art based around the cave system

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13 For my concept art I could do parts of the spaceship that the player would be on. The corridor would be a great one point perspective also key features of the ship like the bridge, medic room.

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16 For my game I have to consider different types of mechanics, this image blowers represents this.

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27 For my boss I plan on using a war mech and two different types of minions before the boss fight

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Unit 76 Mood Board

Rule 1: Obvious mission goal & entrance

Rule 2: Difficulty with successful attack possibilities

Rule 3: Three between mission areas

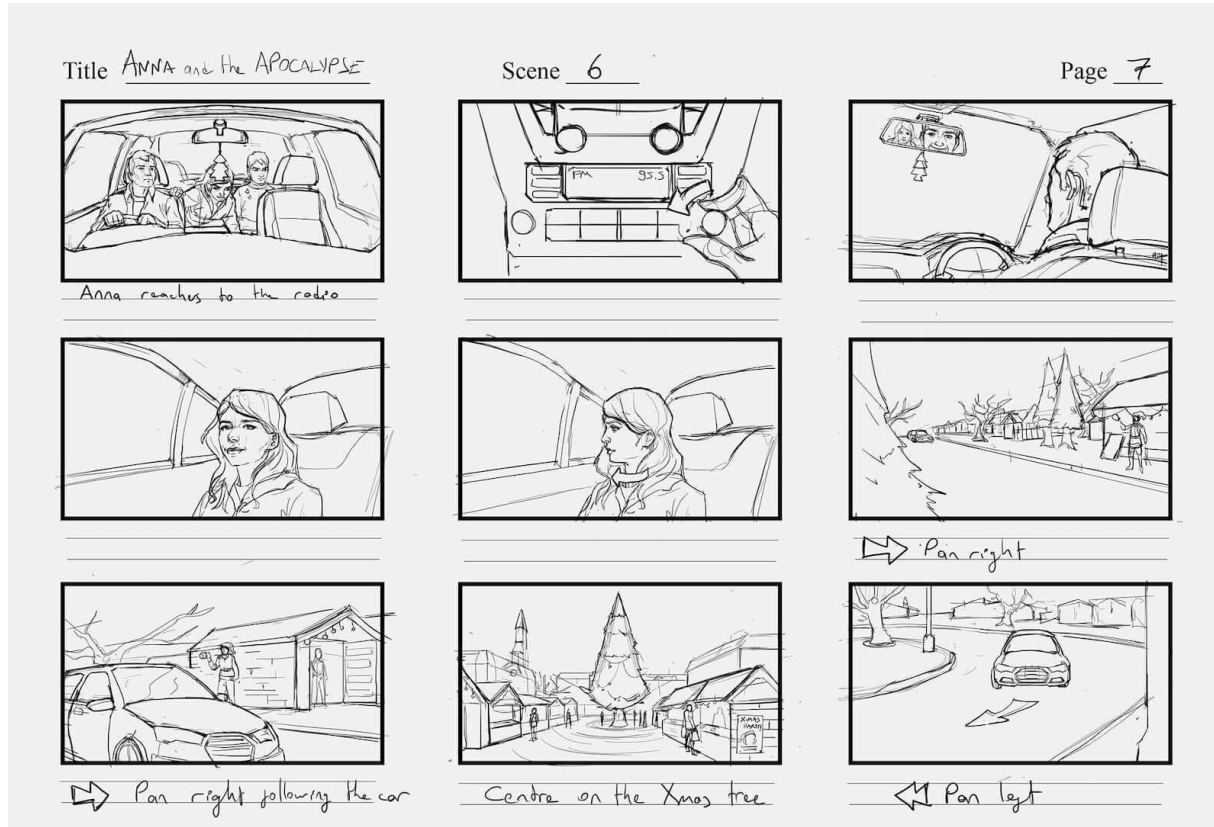
Rule 4: The amount of mission areas

Rule 5: Obvious mission goal & entrance

Example of mood board, [alanh-gamedesign.weebly.com](http://alanh-gamedesign.weebly.com)

- Story of the room consists of events that happen in the room.
  - It is usually a series of memorable moments.
  - Good story has exposition, rising action, climax, falling action and resolution.
  - Stories may be written, but for better image, story boards are used.
  - Each part of story should have few frames.
- Good story also has a backstory. Backstory is made of events that happened before the story, or that happen outside the room. Good backstory can give players more sense, motivation, feeling of bigger world and atmosphere.

# Story board: Example



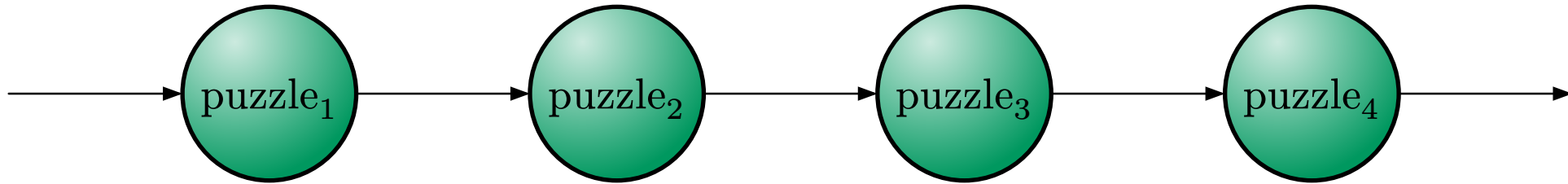
Example of story board, [studiobinder.com](http://studiobinder.com)

- Some puzzle principles are theme independent
  - arithmetic, pattern recognition, set completion, making connections,
  - passwords, crosswords,
  - locks, doors and keys, ...
- Some principles rely on theme and atmosphere
  - sensory puzzles
  - specialist puzzles (electrical, chemical, mechanical...)
  - ...

## Puzzle graph

- Dependency of puzzles/doors and clues/keys form a graph.
- The graph should be acyclic, ie. no clue/key shall be locked behind its puzzle/door.

## Puzzle graph: Linear



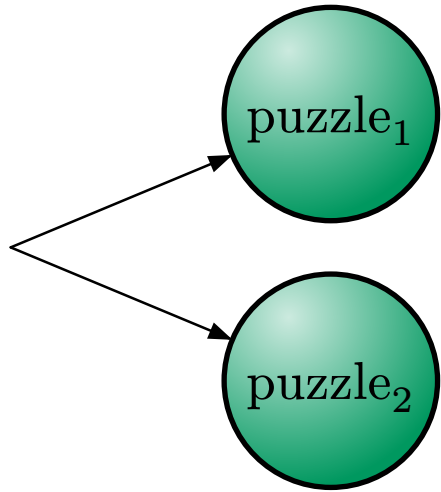
### Pros:

- Good for story-telling
- Slows game

### Cons:

- Players may get stuck
- Part of team may get bored

## Puzzle graph: Branching



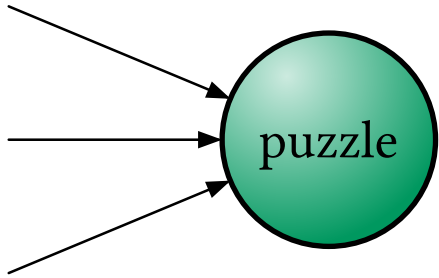
### Pros:

- Stuck players can try other puzzles
- Puzzles can be solved in parallel

### Cons:

- Hard to progress story

## Puzzle graph: Choke points



- Concentrates game flow to one single point.
- Ideal for final puzzles, but also for important story points.

Do's and don't's

- **Don't** repeat puzzle types.
  - Solving tenth crossword isn't fun.
- **Be** very cautious with combination locks – they are used quite often and they may look cheap. Combinations can also be guessed.
- **Don't** make puzzles that don't fit theme.
  - Having computer hacking puzzle in pure medieval setting doesn't make much sense.
- **Don't** make long and tedious puzzles.
  - Searching through all books in a library isn't fun.
- **Do** make puzzles logical, solvable using their clues and power of player minds.
- **Don't** require outside room knowledge and cultural references to solve puzzles. Knowledge of logic and simple math can be assumed, but not much more. Provide good clues for anything else.

## Clues and hints

- **Don't** reuse puzzle clues.
  - Each clue is used exactly once.
- **Don't** put red herrings.
  - The players are clueless already, don't make it worse.
- **Do** make puzzles solvable using their clues, without any need for hints.
- **Do** make clues clearly connected to their puzzles and/or with other clues to that puzzle.
- **Do** provide hints if players are stuck.
  - Make rules for hints if you wish, but be ready to provide the hints.
  - Make hint system part of the room's theme.

- **Don't** make the game strictly linear.
  - If you need to make some part linear, use very easy puzzles.
- **Do** balance use of branched and linear approach.
  - Use branching to split players and to make all of them busy.
  - Use chokepoints and linear parts to progress the story.

- **Do** make use of sounds and lighting.
  - ▶ There is nothing worse than having a silent room with standard office lighting.
  - ▶ Make it fit the theme.
  - ▶ Sounds should be background (for atmosphere) and foreground (for information).
- **Don't** make the room constantly noisy.
  - ▶ If not needed by story, the environment shouldn't hinder player communication.
  - ▶ You want players to hear locks unlocking.
  - ▶ Make annoying sound only if players are able/supposed to silence it.
- **Don't** blink the lights constantly.
  - ▶ Beware of epileptic seizures.
  - ▶ It is considered a cheap and worn out effect.
- In a dark room, **do** give players a source of light or a sound to navigate.

- **Don't** make players do outright dangerous things to solve puzzles.
  - There is unfamous example of sticking a fork into (faux) electrical outlet.
  - Players shouldn't do things that are dangerous in real life.
  - Most players won't even come up with such solution and they will be questioning any hints leading to it.
- **Don't** make players do risky things that may injure them.
  - Especially don't put clues and puzzles in inaccessible places requiring moving heavy furniture. It is an escape room, not a poltergeist room.
- If there is a (faux) unsafe part required by the theme, **do** make players play it safely.
  - Force them into space suits when going to space.
  - Have a remotely controlled robot pick items from nuclear waste.
  - etc.
- **Do** always provide a mean to leave the room in case of emergency.
  - There was an accident in Poland (ToNiePokój) where five players burnt alive.