PART 3   Implementation

Now that we've gone over the basics of how to make an escape room and how you can use it, we need to discuss some ideas for how you can implement it in your classroom or school.

Based on your context, how you choose to implement an escape room will look very different. Below are examples educators who have prototyped escape rooms have shared with us.

Spaces
- Classroom
  - Either use your whole room or just a corner
- Advisory period
- Gymnasium
- Library
  - Libraries are great for larger escape rooms that you want to keep up for longer

Roles for students
- Students as participants
- Students as co-designers of escape rom
- Students observe other students going through escape room

Purpose
- Use as a test or quiz
  - Can be effective for both the design and the experience as a participant
- School Fundraiser
  - Great way to bring community members in
- School competition
- Team building
- Students design for teachers

Your role: the Puzzle Master

Now you are ready to make your own escape room! There are several ways to go about it. You might consider designing it for your students by yourself, or even having a colleague or two join in. You might even consider your students helping with the design and build for other students.

Every escape room needs a puzzle master. The puzzle master helps maintain the flow of the experience. They keep time, and provide clues when participants are stuck. Being a good puzzle master is about assessing what participants need in any given moment, and providing clues that will help push their thinking *without* giving the answer. In most cases, you will be in the room with your students. When you notice students are stuck, sometimes a clue as simple as asking "What do you think those numbers on the wall mean?" will be sufficient to help put students on the right track.

You must also keep track of clues that were already used, and reset the puzzles (especially if you aren't having multiple students go through in quick succession).

Debrief

The power of the escape room experience often lies in the debrief. Make sure you set aside at least 10-15 minutes to allow students to talk about the experience. You can use the collaboration training matrix to help guide your conversation. We recommend having students explain each of the puzzles, and after discussing what you observed. Detailing times when you saw communication really fall apart, or when you thought students were on the same page is a great way of having students understand where their strengths and gaps lie.

Measuring Deeper Learning

The Deeper Learning competencies are a set of important skills that include mastery of academic content, critical thinking, collaboration, communication, perseverance and learning-to-lean mindset. Building these skills will help prepare students as lifelong learners beyond k12 education. Escape rooms are great opportunities to both build, and test the deeper learning competencies.

Resources to measure Deeper Learning

We designed several tools to help you measure student collaboration and communication while they go through the escape room. We co-designed these tools with researchers, and educators, and tested them on our puzzle bus, and in the classroom.

Adapted from Stanford d.School by Stanford Center for Assessment, Learning, and Equity (SCALE).

Observation Matrix
Collaboration Training Guide

This matrix is a tool that can help you measure collaboration and communication as your students go through the escape room experience. This tool is intended to help record how effectively your students work together, and allows you to look at individual skills and needs.

You can make observations for the entire group, or split your class in two and half observing and half running through the escape room

Collaboration Training

TRAINEE

COACH

KEY SKILLS

OBSERVATIONS

EXPECTED BEHAVIORS

NUMBER OF TIMES OBSERVED

To establish what key skills will be measured on, you can the collaboration exercise with your students on the following page

Collaboration Training

TRAINEE

COACH

KEY SKILLS

OBSERVATIONS

EXPECTED BEHAVIORS

NUMBER OF TIMES OBSERVED

Using it to observe

To use the matrix, print out multiple copies or laminate one if possible that way you can reuse it--this works with any collaborative exercise, not just escape rooms.

Simply mark the appropriate spaces with a tally to indicate the behavior was observed. You can also make notes in the margins if something interesting happened that fit outside the expected behaviors.

Collaboration Training

TRAINEE **Marc**

COACH **Louie**

KEY SKILLS

Listening & speaking

EXPECTED BEHAVIORS
speak to peer
NUMBER OF TIMES OBSERVED
卌 |||

group contribution

ask questions
||

cohesion

cheer/congratulate
|

OBSERVATIONS

listen
卌 卌 |||

ignore/interupt
||

offer help
卌 ||

isolate self
|

include someone/show support
|||

grief or insult

Reflection

You can also have students use this reflection tool to help them identify how they thought they did during the experience, and how this is the similar or different from what was observed.
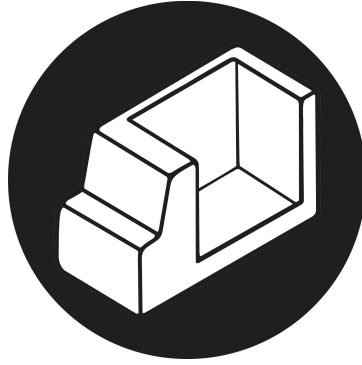
Materials

Items

Materials used for the Puzzle Bus include:

- Dictionary Lockbox - $9.57
- Ultraviolet Marker - $3.24
- Ultraviolet Light 5 pack (best deal) - $11.99
- Plastic Vials with caps 12 pack - $5.99
- Combination Letter Locks - $8.56 ea
- Directional Lock - $7.98
- World Map - $14.36
- Color Yarn
- Expo markers
- Cardboard

The most expensive materials are typically locks, and lock boxes. Other materials can be substituted for low cost alternatives or even made out of cardboard. Second-hand stores like Goodwill and Savers are great places to acquire interested objects that can be manipulated to create puzzles. Old board games and decks of cards are invaluable for code puzzles. An old cookie jar might be a fun prop to hide a clue in.

Adapted from Stanford d.School by Stanford Center for Assessment, Learning, and Equity (SCALE).

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Keep on Puzzlin'

Let us know where your escape room designing adventures take you!

Email **louie@dschool.stanford.edu**
Learn more at **k12lab.org/puzzles**

HASSO PLATTNER
Institute of Design at Stanford