The Accumulated Escape

Chris Kerich
Massachusetts Institute of Technology
Cambridge, MA 02139, USA
ckerich@mit.edu

Abstract
This paper chronicles the design, iteration, and test phases of the Accumulated Escape project, an escape room whose state was not reset by the designer between groups. Even though unfortunate testing circumstances meant that the room could never be fully experienced in the way it was intended, some important conclusions were still reached. Though the room was intended at first to be an exploration of the "naturalization" of a room through use, it instead became an exercise in collaborative design and had to fully embrace its own physicality.

Author Keywords
Escape Room; Accumulation; Codesign; Simulacra; Critical Breaking.

Introduction
The fact that an escape room is reset between attempts is not what people first think of when they imagine the core elements of an escape room. The think of the cooperation, the puzzles, the confinement, the theming, but rarely do they think of the fact that between their group and the next group the room will be reset to the exact way it was before they arrived (even though that is maybe the strangest part about an escape room). The standardization of an escape room is an aspect of their legacy that exists in almost all of its precursors: in digital escape rooms, haunted houses, amusement parks, etc. resetting allows for the experience to be sold (for ad revenue or admission tickets) at a standardized, guaranteed level of quality. This is true of modern escape rooms too, but the literature on them constantly bemoans how difficult the resetting process is. What would happen if we took out this difficult step and ignored some of the values traditionally baked into escape rooms? What happens when an escape room is NOT reset?

Hypothesis
My initial hypothesis was relatively optimistic. I hoped that by removing this resetting aspect that was so tied to the financial side of escape rooms that through use they would tend toward a less constructed, simulacra space like an amusement park or haunted house and more like a lived-in space. This did not come true, but we will address that later.

The First Design
Setting out, I had no idea how to make an escape room. I had played the online versions, though they are

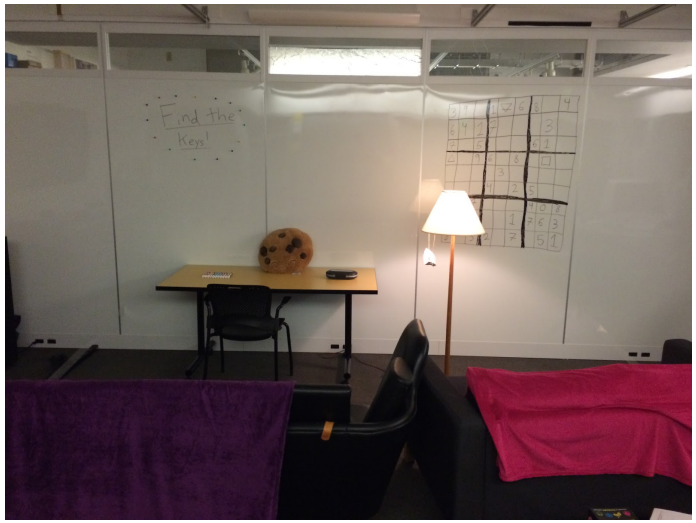

Figure 1: The initial state of the first room design

very different than their real life counterparts, and read the sparse literature that exists. My first constraint was also finding a space to do the escape room, and I ended up using the common area for the graduate students in my department. Considering the physical space, liberally borrowing from my reading, and plain old headscratching, I finally came up with the following:

First, I decided to scope down and try to keep the escape room small and easily modified; I decided to aim for around 30 minutes with a group of around three people. To this end I decided to actually use a smaller section of the room I had decided on: the walls were delimited by tape on the ground, couches, and a big whiteboard. The general puzzle structure was to figure out the 4-digit combination to a lockbox, which you obtained by adding two other 4-digit numbers obtained through other puzzles. Each of those sub-codes were obtainable though separate puzzle flows so teams could split and work on puzzles in parallel.

One puzzle flow was to find a blacklight hidden under one of the couches, then discover a jigsaw puzzle hidden under another couch. By solving the puzzle and shining the blacklight on it, teams got one of the 4-digit codes.

The other puzzle flow was to solve a Sudoku puzzle visible on the whiteboard. The puzzle had symbols in some of the spaces, which corresponded to a hidden key on the back of one of the couch cushions. Matching the numbers that would go into those spaces to the key gave the 2nd 4-digit code.

In both cases, activities were meant to be able to be compartmentalized but ultimately all needed to be completed (the Sudoku could be completed without finding the code, the blacklight could be found without solving the puzzle, etc.). This was done to allow players to change or break how one part worked without necessarily having to change all the other parts to exactly match.

The First Tests

At this point I did not know if I wanted the teams to know that their traces would be seen by subsequent groups or not. To explore this, I did two different tests with two different sets of groups, one set knew that the other groups would see their rooms; the other set of groups did not. One big limitation of this process was that due to the difficulty of arranging many teams to use the same room over and over, I was not able to ever schedule too many tests in a row and the room did

not get to develop as far as I wanted. That being said, there were some decisive results.

One key result is that it was immediately clear that groups needed to know that the room was meant to accumulate over time. The set of groups that didn't know generally had a good time, but the traces that they left never changed much and always returned to a "stable" state of solved puzzles, out in the open. While I did slightly modify the puzzles to be less trivial for the groups it was still too easy.

The other set of groups had a very different experience. Some groups tried to reset the room as they went, constantly hiding the clues that they just discovered. Some ignored it all (because they were one person short) and just focused on solving the puzzles as quickly as they could. Some groups, after they solved the puzzles, worked to make the room difficult and sabotaged it. In the end, this variety of experiences combined with how esoteric and strange the room became as it was sabotaged (chairs on tables, strange drawings on the whiteboard, puzzle pieces everywhere) made me decide that this was the superior method.

In neither case, though, did the room become more like a "real life" room. It either stayed the way it was when it started more or less, or it became a strange, sabotaged nightmare room. I considered my hypothesis to be proved false and decided to work with the trends I saw in the room and the feedback I received to design the 2nd iteration of the room.

Figure 2: The room after 3 groups in the set with knowledge of future groups

The Second Design

One major piece of feedback I received was that the Sudoku was not a very fun piece of the puzzle. In addition, it was too ephemeral: it was easy to erase and completely throw off another group. I decided to focus on having more physically present puzzles that might allow for more manipulation but resist direct erasure. I ended up replacing the Sudoku with hidden symbols in a group of prints taped to the wall and easily removable. They were easy to move but hard to erase.

Figure 3: A close up of one of the art prints with a hidden "5" and an inverted triangle with a line through it

I also added more "noise" to the room to give groups more room to experiment and mix elements. I added extra art, a stapler, and a jug of water to facilitate this.

Many groups also ran close to the time limit in the previous tests, so I extended the time from 25 minutes to 30 minutes and gave each group 5 extra minutes afterwards to mess with the room however they wanted.

Also, I flipped the batteries inside the blacklight to give the puzzle one more step, to give users more points of influence onto the puzzle flow.

The Second Tests

In these tests I noticed something that I hadn't in the previous ones: in the "sabotage" phase after the main time was up, groups were limiting themselves to only changing things so that "it would still be fun". If they had made the room unsolvable, I would have added extra hints to the room to even it out again, most likely on the whiteboard.

In essence though, they were remaking the escape room using the same elements as before. I had set up the initial conditions, but they redesigned the room. I had inadvertently set up an asymmetrical codesign process! In these tests it most consisted of hiding objects in different places than before, one criticism I received was that it felt like there weren't enough meaningful changes that the groups could make for future groups. The physicality of the puzzle objects made it hard to erase them and alter the flow of the puzzles, but it also made it hard to work with and make interesting new interventions. Even despite my additions of extra objects to the room, the groups did not find the new objects inspiring enough to include them in their modified rooms.

Another piece of key feedback at this stage was that they groups wanted more interaction with the other groups who would experience their newly designed room. Their feelings of ownership and authorship never got enough payoff. One suggestion was to leave a sealed letter for the next group to open when they succeeded or failed escaping from the room, which I would definitely include if there was a third iteration of this project.

Conclusion

Overall, the one thing I wish I'd done more is more testing. The project could have really used it. The answer to the question "what happens when the 'reset'

element is removed from an escape room?" in this case is that the room becomes a collaboratively designed space that becomes stranger and stranger as more and more group come through. In the future, I'd try to make the parts more modular and encourage groups to mess with them in a deeper way. I'd also make the puzzle chain one part longer to give more areas for interventions and I would definitely take up the suggestion to leave a sealed note for future groups and possibly position it as a reward for escaping the room. I think this process has benefits and I would love to see it fully implemented in a full-scale escape room someday.