How Collocated Couples Play in Real-Life Escape Rooms

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Abstract

Real-life escape rooms are a new genre of game where players collaborate together to find clues and solve puzzles to escape. Our research explores how couples collaborate with each other in such a novel game genre to understand how escape rooms affect their relationship. In this paper, we present our study of three pairs of couples using observations and interviews. We summarized the patterns of collocated couples' behavior when they are playing in escape rooms in terms of coupling styles, roles and communication. Our results show that escape rooms can help couples increase feelings of closeness and practice resolving conflicts.

Author Keywords

Real-life games, escape rooms, couple therapy

ACM Classification Keywords

H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous;

Introduction

Escape rooms are a game where players are locked in a series of rooms with a specific theme and have to solve puzzles in order to escape [5]. The popularity of escape rooms provides a possibility of exploring the collaboration of groups of players within the context of

Puzzle 1: Find handprints on a picture with a UV light to a find password to unlock a box, which contains the remote control for a toy helicopter. A key to a cage door is attached to the helicopter.

Puzzle 2: Read thermometers from two different walls (20 thermometers each) to find the same values. Use the values to unlock a large box containing the clue for Puzzle 3.

Puzzle 3: Map a number to graph paper to get a five-character alphabetical password for a small box.

Puzzle 4: Read a book in a small box to find patterns on the ceiling. Use the password from this puzzle to get the final key.

Figure 1. The linear puzzle sequence in the study.

playing real-life games. We imagine that escape rooms could be a novel way for helping couples connect in daily life to share an experience together. They may also be valuable to learn about one another and possibly create a stronger relationship.

This paper presents a study of how collocated couples play in escape rooms by exploring how they interact and collaborate. Through our analysis we found that escape rooms can help couples increase feelings of closeness with each other. We first describe related work and then illustrate our study methodology. Next, we describe our findings from interviews and play sessions with the participants. We conclude by summarizing and discussing the implications of the findings.

Related Work

There is very little research on real-life escape rooms. Nicholson [5] conducted a survey of 175 escape rooms around the world. He categorized different styles of escape rooms in terms of puzzle types, facilities, and story themes. He also found that 11% of players of escape rooms are couples out on a date and the concepts of escape rooms could be used for non-entertainment purposes such as education and enhancing teamwork.

We also see there are pervasive games for enhancing people's collaboration and teamwork skills. For example, Urban Encounters [3] is a game that models urban encounters in order to improve integration with everyday urban life. See It [4] is a location-based treasure hunting game that helps players promote physical activity and promote long-term engagement. Escape rooms are similar to Alternate Reality Games

(ARGs), a genre of pervasive game that involves storytelling and narrative [1]. Escape rooms usually contain a specific storyline and theme yet the path through the game is less open than most ARGs since the goal of escape rooms is to simply escape the room.

There is also a body of literature that explores how groups collaborate in collocated settings. This illustrates that group members often switch between independent and shared activities while collaborating [2]. Researchers defined 'tightly' and 'loosely' coupled styles of collaboration in order to reflect the dependency among group members [2,6,7]. When people interact frequently to make progress it is *tightly coupled* whereas when people focus on their own task with less interaction it is *loosely coupled* [6]. These coupling styles also apply to couples in escape rooms because the game experience is mixed-focus and interdependent.

Study Method

The goal of our study was to understand how couples interact and collaborate in escape rooms. We recruited three pairs of participants through word of mouth in our university department. All six participants have been in relationships with their current partner for more than nine months. Two out of six had a previous experience in playing escape rooms. The other four (P1, P3, P5, P6) played for the first time in our study. We coordinated with a local escape room owner and chose a game theme which is suitable for couples. The escape room had a maximum time of 50 minutes and contained a sequence of four puzzles, described in Figure 1 – the objects listed in the figure have been changed so as to not provide spoilers of the room's

puzzles. Participants could ask for two hints from the escape room's employees.

We first conducted pre-game interviews where we asked participants about their experience with escape rooms and puzzles. We also asked about their relationship duration and dynamics. Next, participants attempted to complete the escape room. We entered the room with our participants and took handwritten observation notes because no electronic devices were allowed in the room. After a 50-minute game observation, we conducted post-game interviews where we asked questions such as how they completed the puzzles, why they chose that strategy, how they worked with their partner and moments when they did not, and how they felt the experience impacted their relationship. Both pre-game and post-game interviews were conducted individually and lasted 15-20 minutes for each partner.

Data Collection and Analysis
We audio-recorded and transcribed all of the interviews. We also kept handwritten observation notes to help us better understand what the participants had done and said during the game. We used Grounded Theory-inspired data analysis including open, axial and selective coding to find the main categories and themes in our data. Our analysis revealed five main categories of results: general experiences, intimacy and closeness, communication, disagreements and dissatisfactions, and coupling styles and roles.

General Experiences
Prior to entering the escape room, half of the participants expressed nervousness for the upcoming game. For example, P6 (Female, 27) worried about

performing poorly in front of her husband and having conflicts with him during the game.

None of the couples ended up successfully escaping the room. Pair2 and Pair3 ended up with one puzzle remaining while Pair1 had two puzzles unsolved. During the game, participants were highly engaged and focused. Despite the final result, all of our participants gave positive comments on their game experience.

Intimacy and Closeness
We found the game experience helped collocated couples enhance their relationship and feelings of closeness. For example, P2 and P4 had played escape rooms with friends before and said that playing with a group of friends was more chaotic and hard to engage with compared to playing with their partner. In the post-game interview, P2 described her feelings:

"Because I was playing with him, we really tried our best to escape by ourselves because we are connected, we are couple, we want to do it better. If I played with someone that I really don't know, we could blame each other for the failure… lots of excuses. But with him, we shouldn't make an excuse, we have to do it well." – P2, Female

"I love her three times as much now. [laugh] …… It's a bonding experience, yea, because you were working together to solve things. You appreciated your partner more because you noticed that they were able to do things you know that you can't. Yea, so you feel closer." – P3, Male

All participants said they would play again with their loved one. Some of them gave reasons like "I had a

great time with her" and "Everything is fun as long as I'm with him". P6 explained that playing with her husband was not as worrying as she expected:

"Yeah! I thought that [there'd be] a lot of conflicts, lots of argues, but it wasn't. …… I was so worried about before the game. I worried about I could say something that he wouldn't listen and we go into a fight, but that didn't happen." – P6, Female

Communication

We observed that verbal communication dominated communication between partners. Participants mainly used verbal communication for exchanging ideas, asking for help, and planning strategies. The most frequent communication happened in Puzzle2 because it required players to read thermometers on a wall and compare them across walls. This involved a lot of conversations between partners. Couples moved between different walls and read loudly to help their partner to check his/her readings.

Participants also tended to provide advice and suggestions for each other through verbal communication. For example, when someone took control of the helicopter 's remote controller, his/her partner would keep telling him/her where the toy helicopter was supposed to move. The volume of participants' verbal communication was moderate; we did not observe any whispers or shouting during the game. We assumed that the light background music in the room prevented participants from whispering because it was difficult to hear clearly and the small space of the room made shouting between two people unnecessary.

In addition to verbal communication, participants also relied on physical touch at various points. This was both communicative as well as a means to help one another. For example, P1 lifted his partner up with his arms to check for clues on the ceiling. Pair1 held their hands together when they entered and left the room. These small physical acts reflected their relationships and feelings during the game.

Disagreements and Dissatisfactions

We did not see any major fights or conflicts occur during participants' play. This was also evidenced by our post-game interviews where participants said that they did not feel there were any major conflicts with their partner. Yet disagreements of a more minor nature did occur in the escape room where the tone of people's comments to their partner tended to become harsher as time went on. Due to the time constraint of the escape room, our participants became more noticeably anxious as play went on. Explicit words showing disagreements like "No! No!", "Stop trying that!" were more frequent later in the play sessions. For example, we heard cursing from Pair2 and Pair3 near the end of game. They explained that these words were about self-frustration in the game, not their partner.

Even though there were verbal disagreements during the game, we found that couples were capable of learning from the experience and did not harbor negative feelings. For example, when Pair3 got a key to the cage door, the male participant (P5) tried many times and gave up, but his partner insisted that it should work. This resulted in a verbal disagreement between the couple. After his partner used the other side of key and successfully opened the door, he said

nothing. But in the post-game interview, he expressed his feeling on it:

"At the stage that we had to use that key to open the lock, she wanted to try like that, and I told her it didn't work like that way. But she was right. It is like sometimes I don't listen to her but she is right." – P3, Male

P1 also talked about the disagreement he had with his partner:

"For example, the thermometers wall, she was thinking about the position of different thermometers but I was thinking about the thermometers might have something to do with the circles on the floor. We had different thoughts at that stage. But it turned out both of us were wrong!" – P1, Male

Although participants gave positive feedback on their gameplay, they were still dissatisfied with certain portions of their experience coming from their partner. For example, both partners in Pair1 said that they felt they should have communicated even more with each other while trying to solve the puzzles. P1 expected his girlfriend (P2) to 'be brave' and 'try more,' rather than just coming up with ideas, while P2 commented that P1 did not have an open mind and was too stubborn. This illustrates that escape rooms can cause couples to reflect on their behavior.

Coupling Styles and Roles
We expected couples might be always working closely together and tightly-coupled because of the close nature of their relationships; yet we found that collaboration styles differed depending on the couple.

Two pairs (Pair2 and Pair3) worked in a tightly coupled fashion for nearly their entire time in the escape room. They worked together to look for clues, share ideas, solve puzzles, etc. Even if one person took control of an artifact such as remote control or rope, the other one would stand by his/her partner to give advice rather than moving around to do other things. In contrast, Pair1 shifted between tight and loose coupling styles frequently. They tended to split up when looking for clues or when one person was doing a physical activity the other was looking around. They verbally called out to their partner when clues were found. As P3 said, working together all the time was an advantage for him and his partner and helped them feel more connected.

We expected those who had previous game experience might take the lead in the escape room, but this was not the case. Partners took turns over who was leading and directing their actions. As P4 described, she thought she took the lead at beginning and later on her partner led their actions:

"I felt I was kind of leading in the beginning. But then progress he started to lead, which is okay. Because it was his first time, not sure what to do or whatever. I got him used to do, as it got harder, he started to lead which is okay with me, as it was too hard for me." – P4, Female

Conclusions and Discussion
In this paper we described our study of how collocated couples collaborate with each other in real-life escape rooms. Through our interviews and observations, we found that escape rooms can help couples feel connected with each other where they often work closely together to solve puzzles. While conflicts do

sometimes arise, the couples we studied learned from their disagreements. Verbal communication was prevalent as couples talked about what to do and tried to solve puzzles. Couples liked to shift roles between acting as a leader and follower during the game.

These finding illustrate that escape rooms are likely good tools for couples to engage with each other and share a common experience. They will likely have a range of opportunities to learn *about* each other and *from* each other.

Naturally, our study is still exploratory and these findings should be confirmed with additional research with a larger amount of couples and more diverse set of escape room puzzles.

Our future work involves collaborating with a local escape room facility to design escape room puzzles that are specifically focused on couples and their relationship dynamics. These could be used by couples to increase their intimacy and conflict resolution skills.

We are interested in participating this workshop in order to share our thoughts on novel ways for helping collocated couples communicate better. We also want to learn from other researchers about their discussion collocated interaction.

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