

## **Designing Escape Activities For Higher Education: Build your own escape box**

### **Abstract**

Escape experiences have become a worldwide cultural phenomenon, where participants solve clues and puzzles to ‘escape’ a room or unlock a box within a set time limit. The proposed activity outlines our experience in designing an escape box for a large undergraduate business strategy course. We outline principles and key challenges in the design of learning escape experiences, sharing some of the key resources by which our escape box was designed. We then present teams of activity participants with an escape box challenge of their own. Can you unlock the box in time?

### **Keywords**

Gamification, escape experience, learning design

## **Introduction**

Escape Rooms, where teams of participants attempt to solve a range of puzzles so that they can ‘escape’ from a room within a set time, have become a worldwide cultural phenomenon. As a physical game based on cryptic clues and other brain teasers, the Escape Room concept holds much promise for Management Education, with its potential for deepening student engagement and learning. For avid gamers seeking to play an Escape Room at home, comes the concept of an Escape Box, where teams of participants also solve puzzles in order to open a locked box within a set time period. This activity shares the learning of the organisers in developing and implementing an Escape Box for a third-year undergraduate Strategic Management course at a major Australian university. We share tips and advice for educators seeking to implement an Escape Box experience, as a technique for engaging and motivating students in undergraduate, late undergraduate, and graduate courses throughout the Management discipline.

## **Theoretical Foundation**

Studies demonstrate games as a well-established technique for improving student engagement (Bell & Loon, 2015) and increasing academic performance (Galmath, 2009). In the field of management education, these games have almost exclusively taken the form of online simulations designed around specific topics such as human resource management (Notrth-Samardzic & de Witt, 2019), leadership and teams (Nichols & Wright, 2015), and business strategy (Stone, 1995).

In contrast, games of a more physical and material nature have failed to make a similar impact on the field. This is despite physical activities such as improv exercises having been demonstrated to create a classroom environment conducive to learning (Huffaker & West, 2005). To this end, the rise of Escape Rooms offers potential as a physical game-based

learning technique. An escape room is a game played by a team of people where they have to 'escape' from a room by solving a range of puzzle challenges within a given time limit (Wiemker, Elumir, Clare, 2015). Established in Japan in 2007, the concept has now been popularised across North America, Europe, and Australia (Corkill, 2009). Themes for escape rooms cover a wide variety of subjects, particularly horror and mystery. Puzzles often take the form of riddles, hidden objects, word finds, and matching themes. For keen gamers, escape box activities that can be played at home aim to present a similar experience, where cryptic puzzles are solved in order to be able to open a locked box within a set time periods. Educators are now investigating the possibilities of games such as escape rooms and escape boxes for motivating students (Borrego, Fernandez, Blanes, & Robles, 2017), and deepening critical thinking skills (Clarke, Peel, Arnab, Morini, Keegan & Wood, 2017). Importantly, escape experiences are being applied across a range of university subject and discipline areas, such as human resources (Shaw, 2019), accounting (Giles, 2016), as well as at the high school level in languages and science (Stone, 2016). Escape boxes therefore represent an opportunity for Management educators to present gamified experiences which unlock beneficial student learning outcomes.

### **Learning Objectives**

The proposed exercise is based on our experience in designing and facilitating an Escape Box learning experience for a large third-year undergraduate business strategy course. By means of encouraging Management educators to develop their own escape experience, we aim to provide skills and knowledge around the process and implementation of an escape box game design. We argue that Escape Box experiences can be applied at either postgraduate or undergraduate level, and that they are suited to any discipline or subject. Participants will be presented with our three-step process for designing and implementing an Escape box experience.

Key learning outcomes for the activity include:

1. Understand the concept of an escape experience
2. Understand how a learning escape experience differs from mainstream escape rooms
3. Identify an escape experience design process using student performance and reflective practice to identify key learning needs
4. Identify cost and other resourcing constraints, including time for development
5. Synthesise learning and resource factors into a coherent escape narrative
6. Formulate a game design plan using an escape box blueprint
7. Understand the type of puzzles which can be implemented, from cryptic clues, through to digital technology enhanced features, and thematic based puzzles
8. Learn a test, redesign, re-test, process for Beta-testing, prior to implementation

### **Exercise Overview**

The activity is proposed for ninety minutes. This includes three steps:

1. Facilitators to outline our experience in designing and implementing an Escape Box experience in a large undergraduate business strategy course (25-30 minutes)
2. Participants to play an escape box designed by the facilitators (45 minutes)
3. Debrief and questions from the audience (15-20 minutes)

While the Escape Box has been undertaken in the Undergraduate strategy course with class size of up to 100, we propose a class of up to 50 participants for MOBTS. The Escape Box activity (step 2) is to be undertaken in teams of approximately 4-7 participants.

We will provide Escape Box materials to cater for up to 7 teams. These can include: lockable black Escape Box, three folders containing cryptic clues, padlocks, keys, UV torch, walkie talkies, QR code enabled clue sheets, 'do not enter' tape and other props for building a sense of suspense in the room, other puzzle paraphernalia.

## Session Description

### Step 1: How to Design and Implement an Escape Box

In step 1 of our activity, we will outline our design process around student learning. This includes:

- An overview of Escape activities. Participants will be presented with student testimonials, as well as survey feedback from students who have undertaken the escape box in our large undergraduate strategy course. We will explain how learning escape experiences differ from those of a mainstream escape room
- How we identify participants' (student learning) needs as the first step in building an escape box. Participants will be provided with data on how this process was initiated in the large undergraduate business strategy course, and the learning outcomes for participants which were subsequently identified.
- The cost and resourcing implications of our escape box design, including time for development.
- How we developed an escape box narrative to account for students' learning needs and factor in resource constraints for the activity. Participants will be provided with the narrative for our Business Policy and Strategy undergraduate escape box: "It's 4:30 am and you're on radio 4ZZZ playing REM's Orange Crush, when the studio door bursts opens, and in come five burly police officers. They shut down your production, put you and the production team in handcuffs, and throw you into the back of their police van. As your face hits the floor, you hear the clinking sound of metal and chains behind you as they lock up the studio. Now you have to escape the police van, get back into the studio, and get radio 4ZZZ back on air. Can you do it in

45 minutes?” We will demonstrate how this narrative was intended to meet the learning outcomes for our students.

- How we developed a blueprint for the escape box activity, including the types of puzzles that were developed for it. Participants will be provided with the blueprint for the undergraduate strategy escape box, as well as an overview of the puzzle activities that were undertaken. We will explain how these puzzles were designed to correspond with key elements of the strategy course, including PESTEL, Porter’s Five Forces, and internal resources and capabilities analysis.
- How the escape box was beta-tested. Participants will be provided with an early version of the activity on internal and resources and capabilities, which was changed substantially following feedback from early testers. We will demonstrate the difference between the beta-tested and final versions, and how the redesigned puzzle served to better meet the needs of learners.

### Step 2: Play an Escape Box

In step 2 of our activity, participants will play an Escape Box which the facilitators of the activity have custom-designed for educators seeking to implement an escape experience into their own teaching activities. The narrative for the Escape Box: “Your Head of School calls you into her office to tell you that you’re going to be the new Course Coordinator for LULZ101 Introduction to a Horrible End. Your blood runs cold. The last four Course Coordinators have all met a gruesome death, with the last one found crumpled up under the lecture projector screen while a bunch of glazy-eyed zombie students looked on. Figure out how the last Coordinator died, and make your own escape from the classroom within 45 minutes, or you’ll be next...”. We could provide you with more information on the Escape Box, but that would ruin the experience! 😊

Step 3: Debrief and Questions

In step 3 of our activity, facilitators will debrief on the Escape Box experience undertaken by participants. We will explain how the game was based around the learning outcomes identified for participants (as per our learning objectives), how this came together into the narrative of the Escape Box, how we developed the puzzles through the blueprint, and how this was beta-tested prior to being implemented at MOBTS. Step 3 therefore reinforces the messages from step 1 of our activity, and demonstrated in the escape box activity for the conference.

Step	Time	Facilitator Involvement	Participant Involvement	Resources Provided
1: How to design and implement an Escape Box	20-25 minutes	Facilitators outline the steps taken in designing and implementing an Escape Box for a large undergraduate business strategy course	Questions	Undergraduate strategy course escape box: <ul style="list-style-type: none"> <li>• narrative</li> <li>• blueprint</li> <li>• puzzles</li> </ul>
2: Play an Escape Box	45 minutes	Facilitation	In teams of 4-7, undertake an Escape Box	Escape Box: <ul style="list-style-type: none"> <li>• locked escape box</li> <li>• locked puzzle folders</li> </ul>

				<ul style="list-style-type: none"> <li>• cryptic clues</li> <li>• puzzle paraphernalia (e.g UV light)</li> </ul>
3: Debrief and Questions	15-20 minutes	Provide debrief and answer participants' questions	Questions	Debrief slides

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