# Testing, Tips, and Assessment

You've done it. Congratulations on creating your first digital breakout. But you're not done yet! Be sure to read through all of the tips in this chapter before sharing the link to your new breakout game.

## Test Out Your Game

It is very important that you test out your breakout game before you announce it to the public. I can't tell you how many breakout games I have attempted to play online only to have a crucial item not available to me because the creator didn't change the privacy setting correctly. With individual sharing and privacy settings on so many moving parts, it is absolutely essential that you put your game through its paces before passing it along.

### SIGN OUT!!

You can test your breakout until the cows come home, but if you're still logged in you won't get the same experience as a player will. And more importantly, you won't see what's been made publicly available and what remains private because everything is visible to you as the creator.

Begin by closing all extra tabs and navigating back to your Google Drive page. Click on your profile image on the top right and sign out. Close the browser. Open a new browser, go to https://drive.google.com, and make sure that you aren't still signed in. Once you're sure you've been signed out of the entire Google platform, copy and paste the URL for your breakout into the browser.

Go through your digital breakout as if you were a player checking out the game for the first time. Walk yourself through every aspect of the game including navigating through all puzzles and clues and eventually entering every lock combination until you reach your victory message telling you that you have completed the game. Check off the following list to be sure that each component is in place and visible:

- ❏ Library logo is visible.
- ❏ Background image in main banner is visible.
- ❏ Narrative is properly placed.
- ❏ Lock form is visible and working correctly.
- ❏ Hotspot and other images are visible.
- ❏ All hyperlinks to all breakout puzzles are working.
- ❏ All breakout puzzles are visible.
- ❏ All lock combinations work correctly.
- ❏ Final "Congratulations!! You've won the breakout game!" message is displaying once the breakout has been beaten.

If any component is not available to display, you will know that you need to change the privacy or sharing settings on that particular item such as a Google Drawing, Sheet, Doc, and so on.

### Beta Test

When you are sure that all elements of your digital breakout are working correctly and all locks are visible and effective, share the game with a few people in a limited "beta test." This test will serve to examine the playability of the game and provide you with feedback about whether particular puzzles are too difficult or too easy. You will discover whether you hid access to puzzles or clues too well for players to find them and how successful your challenges and narrative are at immersing your players in the game.

This may all seem overly cautious, but just remember the old adage, "measure twice, cut once." It's far easier to test out your game rigorously now to check for errors, and even have your coworkers or volunteers run through it a couple of times, than to launch it and be faced with an inundation of emails from frustrated players who might not return.

## Tips, Tricks, and Advice

Here are a few final tips for designers of these unique games.

- Players of traditional video games truly appreciate finding *Easter eggs*, which are hidden items that offer bonuses or added content to the game at hand. These sometimes even become a mini-game within a game. Consider adding one or more of these rare items to your digital breakout to add some more excitement.
- *Stick to your theme* no matter how tempting it may be to create nonrelevant puzzles. It is jarring for players who are engaged with a game to come upon puzzles or images that don't sync with the rest of story and atmosphere. For example, if your breakout is set in the Wild West, don't create puzzles that utilize iPhone messages.
- It is important that your puzzles *don't frustrate players* to the point of abandoning your game. Be sure your instructions are clear and so is your solution. When you are designing your puzzles, don't present the multiple possibilities that would work for solving your puzzle as this overcomplicates the solution. Present the player with one resolution so that they are sure they've got it when they find the answer.
- Consider including at least one *red herring* in your game, which will stir up a bit of mystery about your breakout as well as raising its level of difficulty. This could include a hyperlink that goes to a completely unrelated page or image.
- *Have fun!* Don't forget that these are games and are meant to entertain at the same time as providing educational value. If you are having fun while you are creating your game, that spirit will shine through to players who are undertaking your game.

## Assessment

How do you know if your breakout game was a success? Were you successful at meeting the educational goals and learning outcomes that you brainstormed at the beginning of this process? There are a couple of quantitative methods that will help you measure the success of your digital breakout.

### Lock Form Statistics

Sign back in to your Google Drive and locate your breakout's lock form. Rather than viewing and editing the Questions tab as we did to build the breakout, click on the Responses tab. Within this tab there are two additional tab options, Summary, Question, and Individual. Keep the default Summary responses selected, and you will be able to view the following information:

- how many responses to your lock form you

received total (displayed at the top of the page)
- what all of the responses were that you received for each one of your locks
- the percentage of correct responses you received (displayed in chart form for each lock)

The information here is valuable because you will be able to see where players went wrong (or right!) when entering their responses to each of your challenges and exactly what those wrong responses were.

At the top right of this form you have the option to create a spreadsheet of these statistics by clicking the spreadsheet icon. You can also choose to download or to print all responses, and even to be notified by email of any new responses, by clicking on the three dots.

### Google Analytics

You may have chosen while designing your game to connect your Google Analytics account with the Google Site that you created to host your digital game. If so, you now have the opportunity to go in and see just how many people visited your site. You can compare this number to the total responses received on your lock form in order to determine how many of your visitors stuck around long enough to play your game. This is significant because if you had 1,000 visitors over the last month, but only 50 filled out your lock form, you may decide that your game is too difficult. Google Analytics will also provide you with useful information such as

- where your traffic is coming from geographically
- how players found the link to your website (the referring URL)
- what time of day your visitors were on your site
- what types of devices visitors use
- the average amount of time they spent on your page

And if you create a large site with multiple pages for your breakout, that is all the more information that Google Analytics would have collected for you.

## What's Next?

You have conquered the digital breakout game. What do you do for your next adventure? Fear not, there are plenty of other entertaining educational tools out there for you to master next. Here are just a few.

### Twine

https://twinery.org
    Twine is another completely free tool that you can use to design educational games. To be specific, it is

an open-source software application that will help you create an interactive fiction adventure. If you ever played old-school video games where you needed to choose whether your character would do things such as "Cross bridge" or "Pick up axe," you will experience a wave of nostalgia when you encounter Twine. This free software will help you build your own such adventure games. And the best part is that anyone can use it. There is no need to write any code in order to create your game.

### Scratch

https://scratch.mit.edu

Scratch is a visual programming language that can be used to create interactive stories and games by utilizing programming blocks of different colors. It was designed as a programming tool that can be learned by children. Anyone can master this type of coding. The Scratch community posts plenty of examples of projects, ideas, and helpful tutorials to get you started.

### Live Escape Games

When you are done with online adventures, why not create a live version of your games? Real-world escape games are incredibly popular and offer a world of possibilities of their own. Pick up a complete lock kit and check out the hundreds of free scenarios including *A–Z* instructions at Breakout EDU and challenge your library patrons to a real-life quest. Or design one from scratch!

*Breakout EDU*
https://www.breakoutedu.com

### Scavenger Hunts

Send your library patrons on a scavenger hunt around the library. Send them to the stacks to find a particular call number, to circulation to request a form, or to the makerspace to discover a 3-D printed item. These games are a perfect way to transform boring library orientation presentations into an exciting and engaging activity.

### LARPs

LARPs, or Live Action Roleplaying Games, completely immerse players in a themed game by casting them in the roles of key characters. Libraries can and already are actively hosting LARPs within the library for patrons eager for this type of engrossing play experience. Download a free LARP scenario and from the RPGnet Wiki or other resource and tailor it to send patrons on an epic library quest!

*RPGnet Wiki: LARP Scenarios*
https://wiki.rpg.net/index.php/LARP_Scenarios

### Augmented Reality Experiences

Free augmented reality tools such as HP Reveal allow users to create virtual layers over real-world objects to provide additional information, videos, and even images relevant to the item. When end users scan these items with their mobile devices, they are served up web pages, text, videos, alternate images, and so on. This can create quite an engaging experience for participants. At the New York Law Institute, I create a rare books exhibit with some of our older items such as General Washington's copy of Corbin's Code de Louis XIII, 1628, and Alexander Hamilton's Law Register in a Treasures and Technology event. I didn't want these rare resources to be damaged by visitors handling them, so I chose to incorporate augmented reality layers into the experience. When visitors held their mobile devices over each book, they were able to view further information about what was inside. When they waved their phones in front of the images of our reference staff (also treasures!), they saw the images come to life with videos of staff waving at them and saying hello in a Harry Potter portrait–type experience. Visitors couldn't wait to get to the next item to see what it would reveal.

*HP Reveal*
https://www.hpreveal.com

### Consider Hybrids

In addition to these alternatives to digital breakout games, you may also consider creating hybrid adventure games that combine live or real-life components such as a scavenger hunt, short escape room game, or perhaps a library orientation tour or a training presentation and following it up with an online component. Perhaps students or players are charged with finding physical clues to digital locks throughout the library following a guided tour or perhaps digital searches of the library's online catalog. Or perhaps use of the databases could lead to the combinations for actual physical lock boxes that open to present students with library swag, candy, or other physical rewards.

Whatever you choose to create, it is sure to be a hit with library patrons who will appreciate your creativity and benefit from your educational content. Best of luck on your game design adventure!