



Building Skills for Life **QUEST**

# Heroes: Mine Rescue

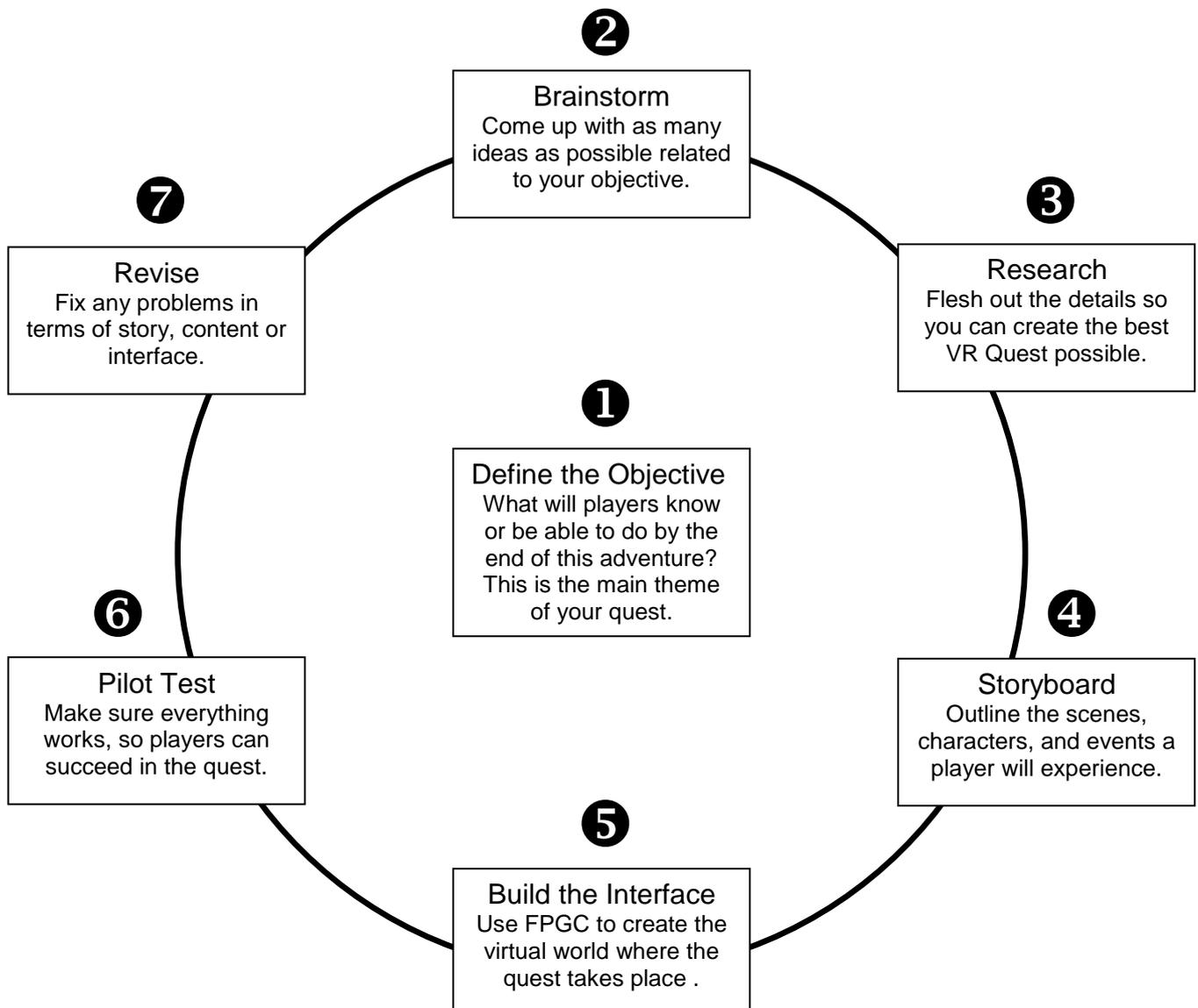


## Be a Hero!

Now that you've learned how to build and move through a virtual world, it's time to create your own VR Quest. Using the FPGC software, you can build an infinite variety of worlds where players can act out the storylines you've devised. Whether it's figuring out how to find a mummy in an Egyptian pyramid or creating a colony on Mars, you will be going through the same basic steps.

Be aware that you may not go in order as you design your quest. While brainstorming, you may start doing the storyboard, then do research. While building the interface, you may have to go back and do more brainstorming.

This guide will show you how these steps apply to making your player a Hero by challenging them to rescue trapped miners. Though you can design a quest on your own, you can often generate more ideas as a team. Most of all – have fun!!



## ❶ Define the Objective

Before you start designing your game, you need to decide why players are going through it. This is called the objective.

An easy way to write an objective is to complete the following sentence:

By the end of this game, players will be able to \_\_\_\_\_.

A good objective is clearly stated, and measurable (you can tell whether or not someone has achieved it). An objective should have no more than 5 main points.

For Heroes: Mine Rescue, a sample objective might be:

By the end Heroes: Mine Rescue, players will be able to:

- Know that heroes embody noble characteristics such as bravery, loyalty, selflessness, strength and conviction and outline how these characteristics are embodied in a real-life hero of their choosing.
- Describe some of the main components of a mine.
- List some of the main dangers associated with mining.
- Act as a hero and rescue trapped mine workers.

## ❷ Brainstorm

Brainstorming is about being creative, and generating as many ideas as possible. The following tips will help:

**Accept all ideas.** There are no bad ideas. Collect as many ideas as you possibly can. One idea that sounds silly may be a stepping-stone to another, better idea! Sometimes the best ideas come from opposite points of view. Play a game where one person says a word and the other person says the first word that comes to their mind.

**Write on a big paper.** Your group will generate more ideas if everyone can see them written down.

**Use Pictures and Colors.** Add pictures, drawings and photos to spark creative thoughts! Writing in color can help you to organize your ideas, as well as generating more.

**Play background music.** The best music to think by is music without words. If you are brainstorming about adventure, maybe a movie sound track would help stir those creative juices.

**Set a time limit.** Have a clock in view and set a time limit to the brainstorming session. A half hour is usually more than enough time.

**Take short breaks.** Walking around gets more blood to the brain (meaning better thinking!). Stopping for a minute to get a drink of water or some fresh air can inspire new ideas.

When you've finished start sorting the great ideas from the rest of the pack. As a group read each idea out loud and decide together if you want to leave it on the list. If not, then cross it off. Think about what you can realistically create in the time you're given using FPGC.

### ③ Research

Remember the objectives you wrote in step 1? Use those objectives to guide your research, finding answers to any questions they raise.

For this quest, it is important for you to think about what you think makes someone a hero. Pick one of your favorite heroes in real life. It could be a great humanitarian like Martin Luther King, Jr., an activist like Cesar Chavez or Susan B. Anthony, or a leader like Mahatma Gandhi.

- Name the characteristics of a hero. *Heroes are brave, smart, know how to solve problems, giving, strong, helpful, etc.*

- Describe how these characteristics are embodied in a hero of their choosing. *Rosa Parks (for example) was brave to stand up for her rights, had the moral conviction to stand by her beliefs, and selflessly took risks for the benefit of other people.*

- Describe some of the main components of a mine: *Lifts are used to move between different levels, tunnels go to places where the mining is happening, supports hold up the roof and sides of the mine, mine shafts connect one place to another, buildings on the surface support the work that's happening underground, etc.*

- List some of the main dangers associated with mining: *Cave-ins, toxic gasses, losing electricity and not being able to use lights or lifts, getting lost underground, running out of air to breathe, etc.*

- Act as a hero and rescue trapped mine workers. *To rescue the mine workers, the player will have to be smart, strong, and willing to face danger - like a hero in real life.*

Additional research might include finding pictures of mines to see how they look, reading articles about real mine disasters, watching video clips of mine rescues and learning about people who acted as heroes.



### Websites

Here are a few websites to look at as you start to conduct research:

<http://www.myhero.com/go/home.asp>

<http://en.wikipedia.org/wiki/Mining>

<http://www.msha.gov/kids/kidshp.htm>

## ④ Storyboard

Now you will create your story. One of the best ways to do this is to create a series of panels, like a comic book. This will help you to envision both the actions that the player will be doing, and the environments in which they'll be doing it.

Every story will have the following main components:

**Introduction:** Here, the player is introduced to the characters, environment and objective of the quest. You will also establish the player as the 'main character' of the story, and let them know what is expected of them.

**Body:** The body is where all the action takes place! Your player will face challenges, solve puzzles, meet other characters, and build toward the climax.

**Climax:** A climax is the ultimate challenge, where the main character uses everything they've learned during the course of the quest to achieve their final objective.

**Summary:** The summary congratulates the player for a successful quest, and reminds them of all the amazing things they did to get here.

In order to create a good story, you will need to define the challenges that the main character will face on their journey. Ideally, all of these will build upon one another, getting harder and harder as the player moves forward.

As you devise your story, be sure that the problems the main character needs to solve are not too easy, but also not too hard. If they need knowledge to answer questions, be sure to embed the answers somewhere or explain clearly where they can be found. Following is a sample storyboard for a mine rescue.



## Sample Storyboard for Heroes: Mine Rescue

Introduction: Panels 1-2		Body: Panels 3-15
<p>1. Start above ground Player must walk into a small building on the side of a mountain.</p>	<p>2. Player goes into a small office with a control center. A character explains. "People are trapped underground, can you help?"</p>	<p>3. Several doors lead to a character that gives player equipment to go into mine. Player enters elevator.</p>
<p>4. Lift opens in underground room full of equipment. A hallway leads away. Through you can see a conveyor carrying loads of ore.</p>	<p>5. Player walks hallway to another door. Enters a small room with breathing gear, security posters and elevator. Dim lighting. Player enters elevator.</p>	<p>6. Player takes elevator down. Flashing lights show levels. Eventually exits in a maze of tunnels. Player has a map with an x where the miners are located.</p>
<p>7. Player exits at bottom. In tunnels with rough walls. Electric lines run along the ceilings.</p>	<p>8. Some tunnels double back, others come to dead ends. Player needs map to find blocked tunnel.</p>	<p>9. Player comes to a metal door. Near it is a hole that goes up into the ceiling. Door won't open.</p>
<p>10. Audio file: door closed due to an emergency. Player must use manual override switch. Switch is mounted near door. Player pushes switch and enters room.</p>	<p>11. Door closes behind player. Lighting is dark until player moves forward and light begins to flicker. Fog moves in. Small lights illuminate the path.</p>	<p>12. Along paths are tunnels that double back. Farther on path crates block way forward. Player must move crates to continue.</p>

<i>13. Further forward debris and angled metal beams block path. Player can barely make it through the area.</i>	<i>14. Player comes to a door blocked by a huge rock. Audio file "We're in here, help!"</i>	<i>15. There is a small vent cover near the floor. Player can crawl thru the vent.</i>
Climax: Panel 16	Summary: Panel 17	
<i>16. Vent leads to a small room where people are gathered. Audio file: "Thanks for rescuing us, we were getting worried."</i>	<i>17. Video broadcast recounts the heroic journey of the player – stating how they had to overcome obstacles and danger to rescue the trapped mine workers.</i>	<i>End of Game</i>

## 5 Build the Interface

Now that you've decided your story and main scenes, it's time to build it using the FPGC software. Use the tables included with this guide to help you remember how to use the commands to build your quest.

Depending on what's available and how much time you have, you may need to go back to steps 2 - 4. Maybe you don't have time to build the complex set of tunnels, or the equipment to record the audio you'd like so you need to revise the storyboard. Perhaps you're not exactly sure what kind of equipment a hero would need to survive toxic gases and need to do more research. Or the story might benefit from a bit more brainstorming.

## 6 Pilot Test

After you've finished building your first draft of the quest, you'll need to give it to people outside your team to solve. This will help you to identify any problems that need fixing. Ask the following questions of the people who try it out:

- 1) Did you know what you were supposed to accomplish to win the game?
- 2) Did everything work (switches, videos, doors, etc)?
- 3) Did we provide everything you needed to succeed in this quest?
- 3) What do you think could make the quest better?

Professionals go through many pilot tests because there are almost always things that don't work the way they expected. Depending on time, you may want to do several test runs.

## 7 Revise

The pilot test will give you lots of information. Maybe players didn't understand what they needed to succeed. Perhaps they weren't able to move items or open doors to move forward. Or critical information that they needed to solve the quest wasn't available.

Following are a few of the things you may need to revise:

### **Factual Content:**

- Did players understand the quest?
- Was all the information needed available to players?
- Did the story make sense?
- Were there things that misled players because they were unclear or inaccurate?

### **Interface:**

- Did all of the interactive features work?
- Could the players navigate the landscape?
- Was the setting attractive, and in line with the theme of the quest?
- Did things like maps or guides properly match the 3-D landscape?

### **Overall Experience:**

- Was the quest at an appropriate level of difficulty?
- Did players stay interested in the quest?
- Were players able to complete the quest in a reasonable amount of time?
- Did players have an overall positive reaction to the quest?

In revising, it is likely that you will repeat some of steps 2 - 6. If you have a chance to pilot test a second time, hopefully you will see how much better your quest is after incorporating feedback.

## **Take it Home**

One of the best things about VR Quest is you can take your project home! When you've finished, you will be able to save your file in a format that can play on any home computer, without needing the FPGC software.

Your friends and family will be amazed that you've created your very own computerized quest, and will enjoy playing it long after you've gone home.

In the future, we hope you'll be able to join us in designing a wide variety of quests, sparked by your creativity and imagination!

