



Lowell Institute  
for Mineral Resources

# **HARRY'S HARD CHOICES PRE-SESSION TUTORIAL**

**A Training Curriculum Development Resource  
for the Harry's Hard Choices Interactive Computer Game**

This material was produced under grant number BS-27763-15-60-R4 from the Mine Safety and Health Administration, U.S. Department of Labor. It does not necessarily reflect the views or policies of the U.S. Department of Labor, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.

# **HARRY'S HARD CHOICES: PRE-SESSION TUTORIAL**

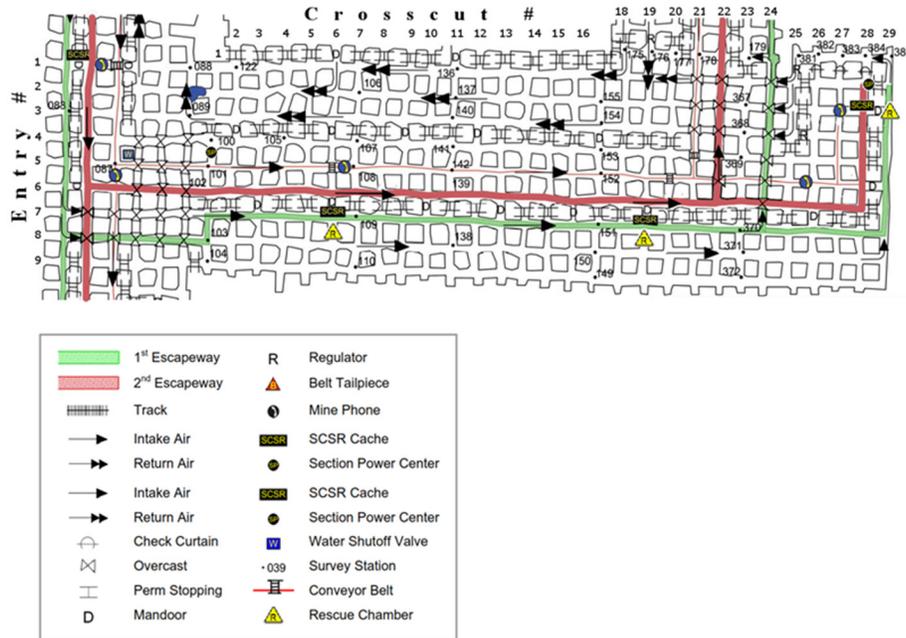
## **Harry's Hard Choices**

### **Pre-Session Tutorial**

[Pre-session]

Outline session learning objectives and obtain consent to participate.

# The Bottleneck Mine



[Introduction]

"*Harry's Hard Choices* is a game about mine emergency preparedness. It's a "serious game," so it's both a training simulation and a video game. During the course of this game, all sorts of crazy things may happen. You'll need to make good choices in context in order to save yourself and your crew from death."

"In this game, you play the role of a section foreman. You have a crew of 8 working in your section. Your crew is working over here at the face [point to upper right corner of map] in the Northeast section. Some sort of disaster has just happened over here [point to center and left, vaguely], outby your position. Your objective is to assess the situation and get your crew to safety. If you choose to evacuate, you'll want to get them out of the Northeast section and to the mains, over here [point to northwest corner of map]. You may also choose to go to an alternative refuge, such as one of these refuge chambers [point out the 3 RC locations on map]."

Notes: If asked about firefighting or mine rescue, tell the students that no one in the crew is part of the company's emergency response or firefighting team.

# Heads-Up Display (HUD)

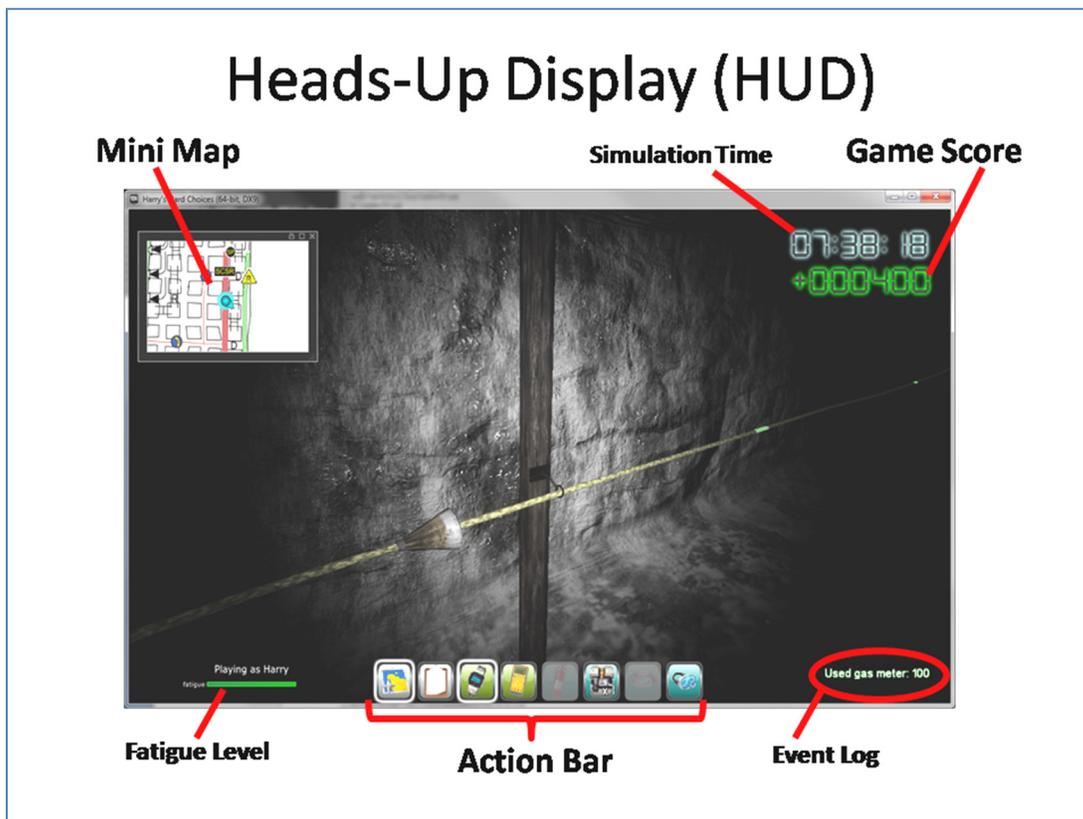


[Game Screen]

"This is what the game will look like. If you play games, it looks like a first-person shooter."

"This is the 3D view [Point to center of window], showing the game environment. This is the viewpoint of your character, Harry. You should be very mindful of your environment -- know your ground. This is a mine emergency, so bad things can happen if you aren't very careful."

# Heads-Up Display (HUD)



[Heads-up Display]

"This is the heads up display, or HUD." It has several important parts to it."  
[Start tour of interface at upper left and proceed clockwise]

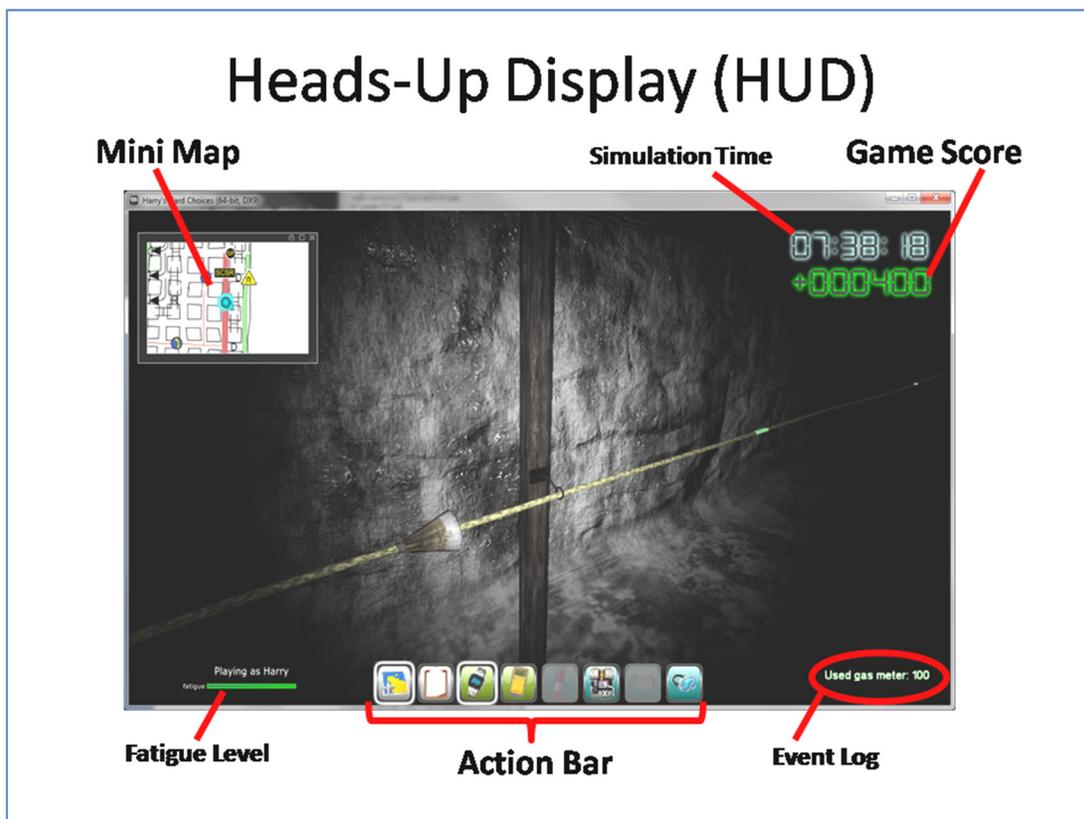
"This is the mini-map, which shows you where you are in the mine. This blue-green dot is you, and the arrow shows the direction that you are looking in the 3D world."

"This is your simulation time. It starts at current time. It's up to you note what time it is for things like breathing apparatus. Just like the real world, breathing apparatus will expire. You'll need to track your time to prevent this from happening."

"This is the game score. Anytime you make decisions in the game, it will impact your game score. You get points for making good decisions. You lose points for making bad decisions. The 'right' choice will depend on circumstances."

"This is the event log. It shows you what's currently happening in the game. It will tell you when you gain or lose points, when conversations are going on, and if the game is waiting for input from you."

# Heads-Up Display (HUD)



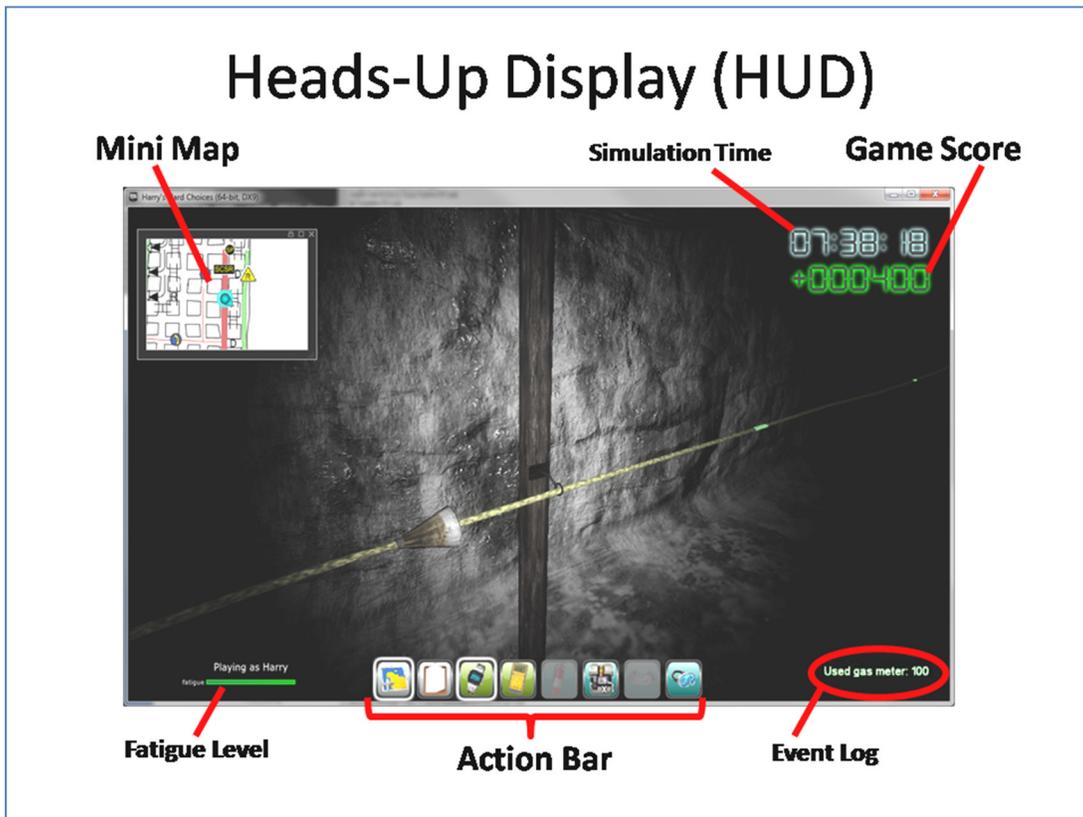
[Action Bar]

"This is the action bar. It's basically your equipment interface. This white circle means a piece of equipment is active." [point to map and watch]

"The equipment in the game is safety-oriented. There are a few icons that you should pay close attention to: clipboard, gas meter, goggles, lifeline, and SCSR. [point to each]. You may click these buttons using the keyboard or gamepad."

- "This button represents the learner's clipboard. It tells you details about game events and explains why certain decisions are good or bad."
- "This button represents your gas meter. Use the gas meter to check for dangerous gas levels."
- "This is the safety tether for the escapeway line. Use it to tether to the line to keep people from getting lost. Crew can become disoriented and get lost in dense smoke, so I highly recommend that you use the tether whenever possible. It only lights up when you are in reach of an escapeway line."
- "These are goggles. Click this to put on your goggles, which will keep some of the smoke out of your eyes and help you to see better."
- "This button is used to don or swap SCSRs. This number indicates the quantity of SCSRs that each person is carrying."

# Heads-Up Display (HUD)



[Breathing Apparatus]

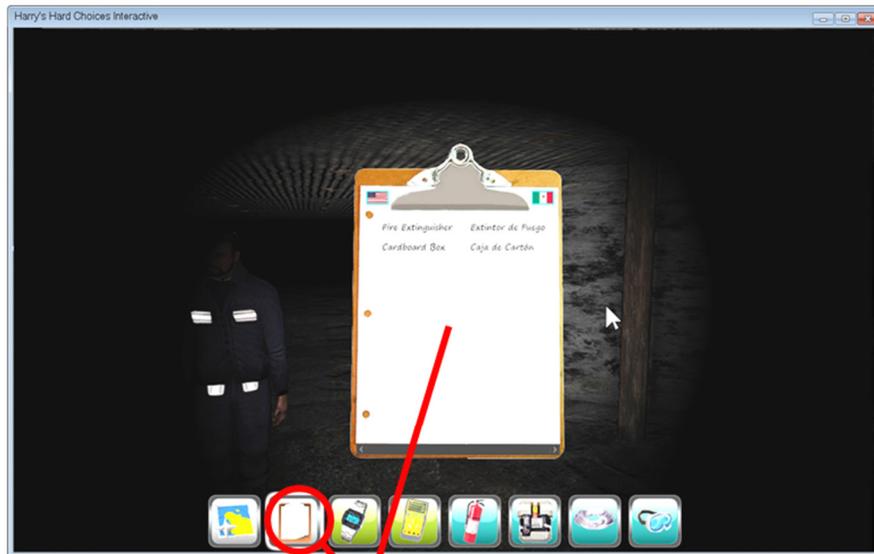
"When you don a breathing apparatus, the rest of the crew will follow your lead. Since you're the leader, crew will always does do as you do."

"A note on using breathing apparatus: You'll start the game with a portable M-20 SCSR on your belt (quantity 1). This is a small, 10 minute unit, which is only long enough to get to a nearby safety cache. [Motion to belt and illustrate approximate size of the breathing apparatus.] If you need a long-duration unit (SRLD), you'll need to get to a cache and pick them up. The SRLD is a 60 minute unit."

"Also, if you pick up an SRLD before donning your 10 minute SCSR, you'll see your inventory go from 1 to 2. When you tell the crew to don their SCSRs, they'll automatically use the longest duration unit that they're carrying. So they won't don the SCSR if they're carrying an SRLD – they'll put on the SRLD first and save the SCSR as a last resort. They won't don the little one while lugging the big one around."

"If you click the SCSR button again, you'll swap to a new unit, or toss the one that you're currently wearing if no spare is available."

# Learner's Clipboard



**Look at Clipboard (Log)**

[Clipboard]

"This is the clipboard. It may be accessed through the clipboard icon, gamepad, or keyboard. The clipboard contains a log of important events and scoring."

"Each scored event has a 'Learning Point' associated with it. The 'Learning Point' gives you details about why you gained or lost points."

"You can access the 'Learning Points' by clicking on any line that you want to see in the clipboard. Note that you need to switch to mouse mode in order to click on the lines or scroll the clipboard."

# Using Escapeway Lines

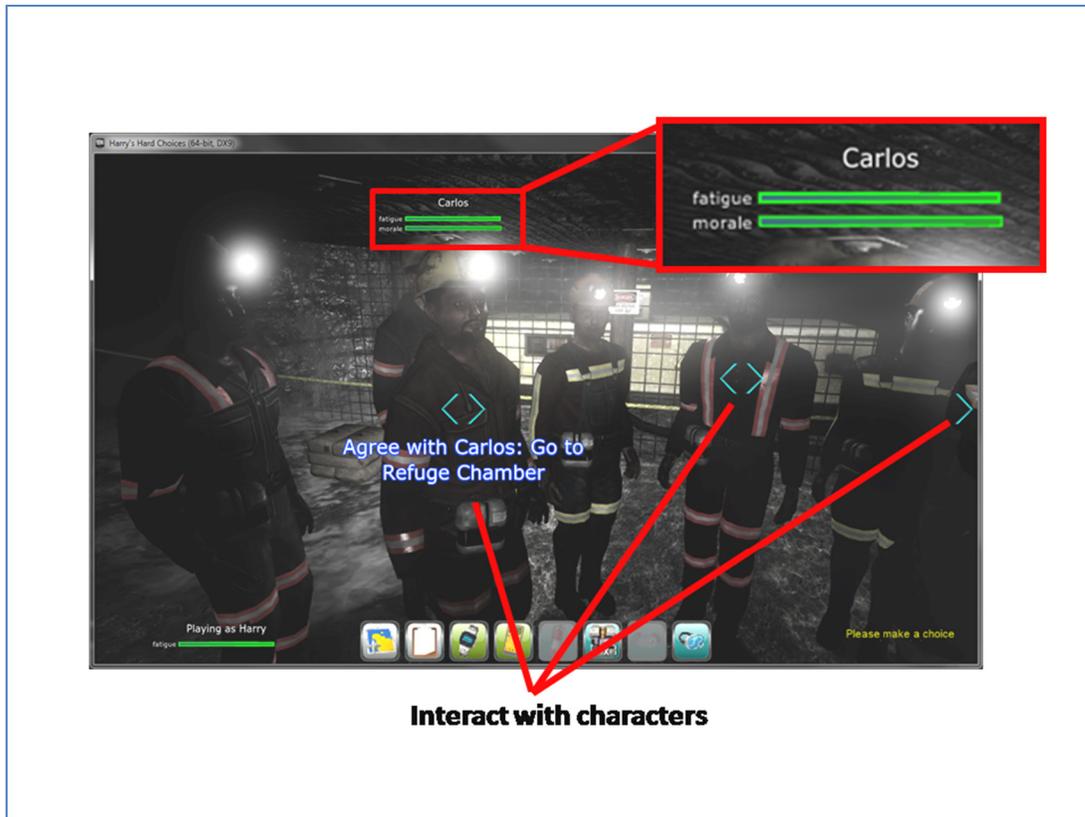


**Clip to Escapeway Line**

[Escape Way Lines]

"You can tell the crew to hold onto lifelines by pressing this button. Notice how they hold onto the line and follow it. This keeps the crew from getting lost."

"While you're holding onto the line, the button has a white ring around it, showing it's active."

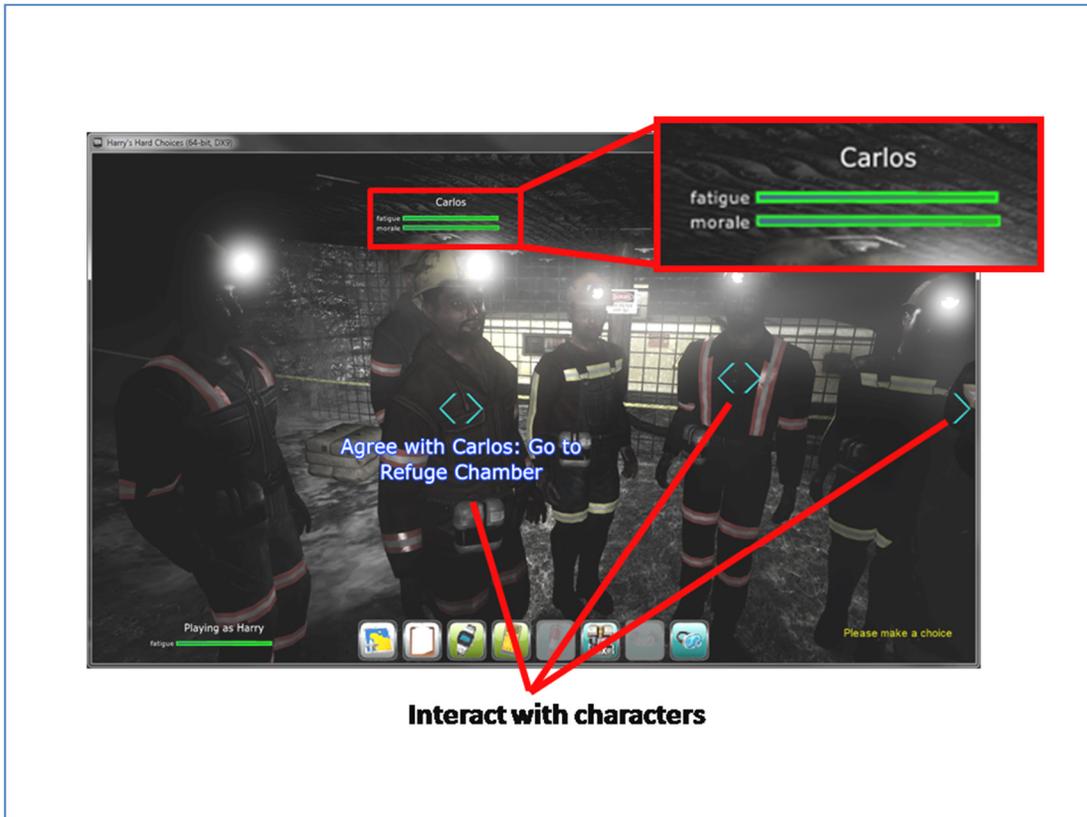


### [Making Choices]

"There are several ways that you can make choices in the game. One is to agree with characters on your crew. The characters will have a discussion and present you with options. By agreeing with someone, you are making a choice. For example, Carlos wants to go to the Refuge Chamber. If I click on him, that means I've told the team that we are now going to the Refuge Chamber."

"There will be carats (<>) on each character that presents you with a choice. You can only agree with them when the text is visible. For example, this guy has carats on him. [Point to Josue] If I want to agree with him, I'd turn my head to the right, until the text was visible. Then I can click him to invoke the choice. I can use the gamepad left trigger button (or left mouse click) to choose him." [Hold the gamepad and visibly show the left trigger button.]

"Notice that sometimes you can have guys off-screen that present you with options. If there's a guy off-screen that has an opinion, you'll see an arrow (< or >) at the side of the screen indicating you have off-screen options. For example, here I have a guy off-screen that is giving me a choice. [Point to arrow at right] I need to turn

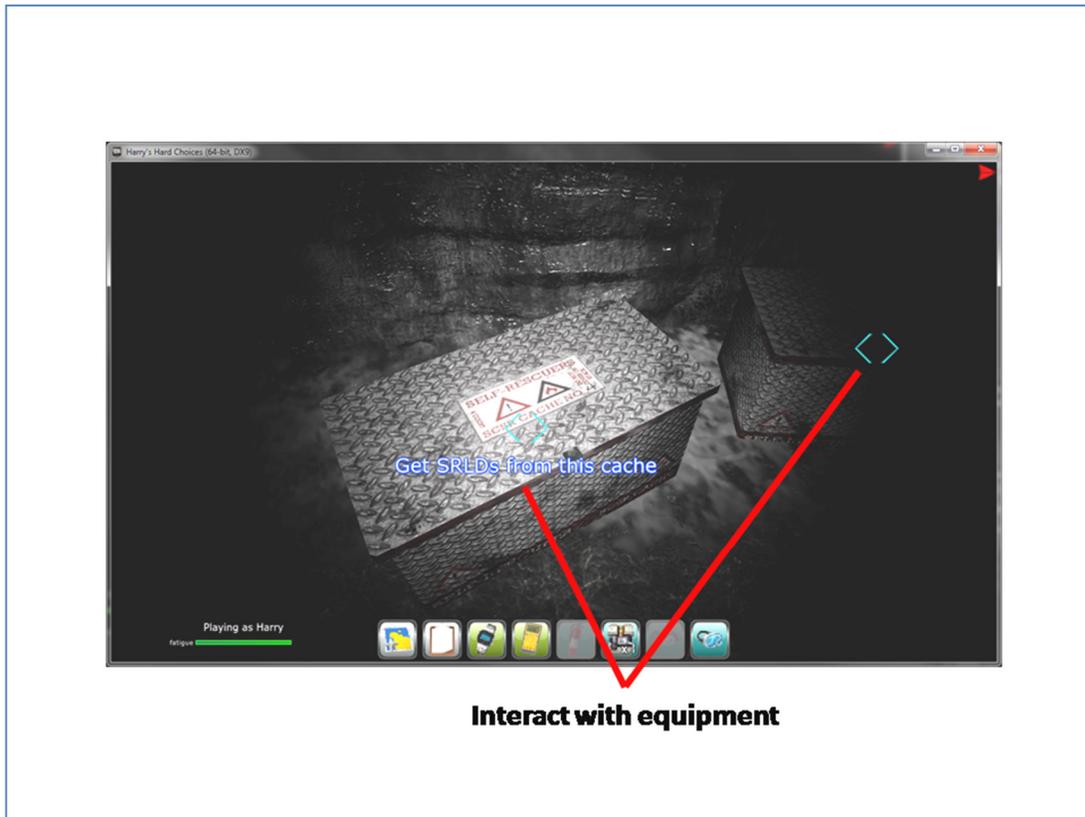


### [Character Status Metrics]

"Also, notice that each character has some “stat” bars above his head. One is Fatigue, which works exactly like yours. When the character is fully fatigued, the bar goes to 0, and the character is incapacitated – dead. There’s also another stat called “morale.” Morale is based on the decisions that you make. When you make good decisions, character morale goes up."

"When you make bad decisions – or don’t make any decisions at all – the morale goes down. Morale is contagious. For example, if you make a decision that gets somebody killed, then crew morale will go way down. If morale gets low enough, a character may stop listening to you and even abandon the group. He may even tell you were to go, quite colorfully."

"It’s your job as the crew leader to keep these guys together and on task, and to get them out of this emergency."

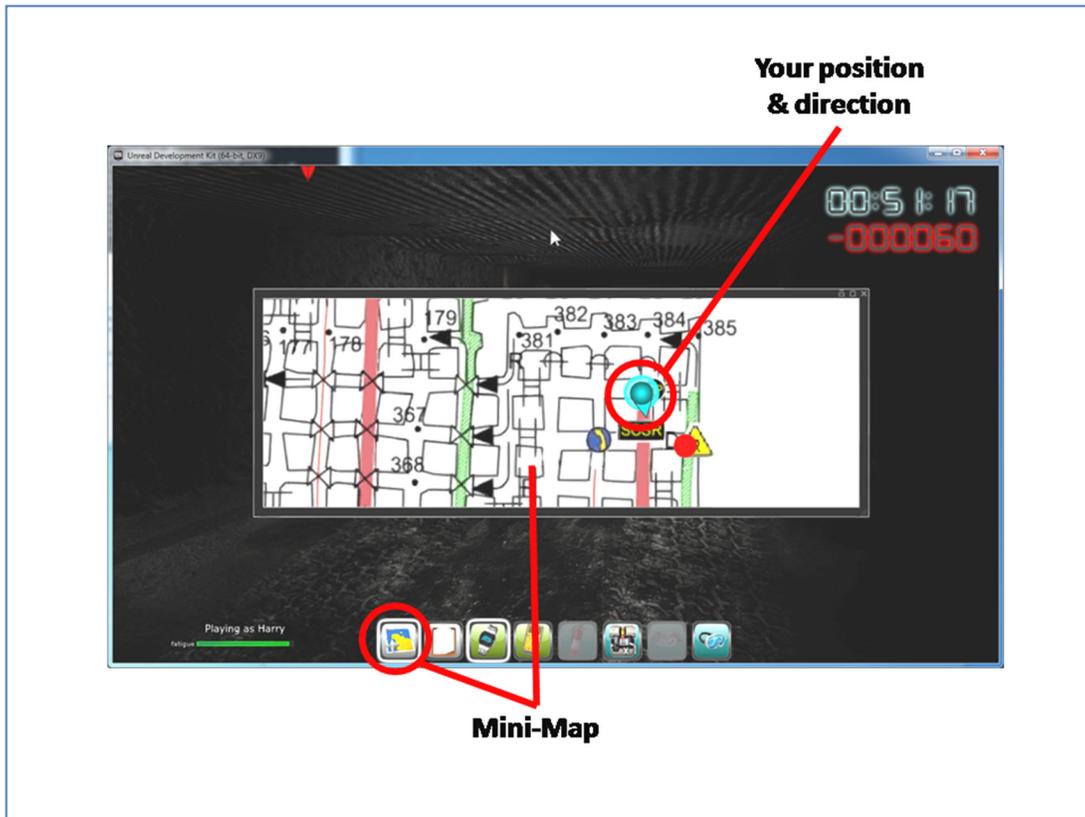


### [Safety Caches]

"Another way you can make choices in the game is to interact with the environment. You'll see carats (<>) on equipment that is actionable. If you walk up to it, you'll see text indicating what action you can take. Again, the text has to be visible for you to interact with it."

"For example, if I want to get SRLDs out of this cache, I walk up to it and see this text. If I click my left trigger button [Again hold the gamepad out, visibly touching the left trigger], I'll get a set of SRLDs from the cache. Everyone on my crew gets one spare SRLD, which will be updated in the inventory here on the task bar."

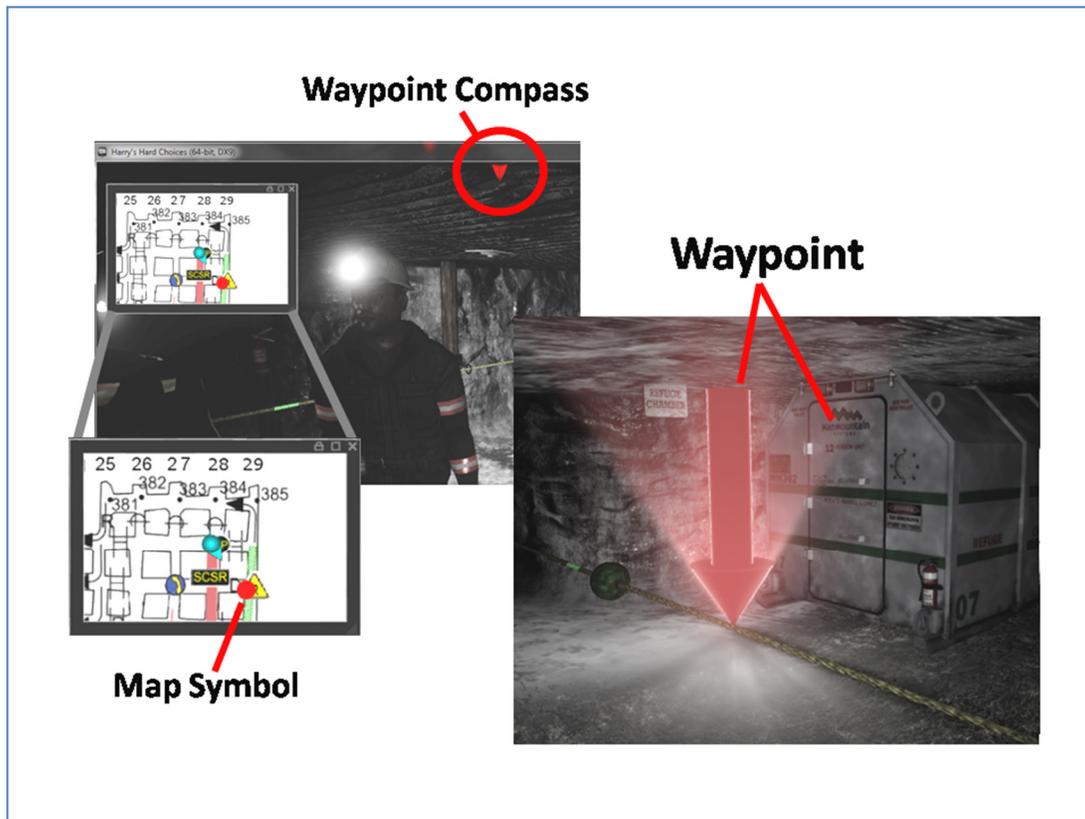
"You can interact with anything in the environment which has carats (<>) on it. This includes some vehicles and haulage."



[Mini-map]

"This is another look at the mini map. It can be enlarged with the mouse cursor by dragging the bottom right corner. There are also keyboard and gamepad controls to pan the map left and right, and to zoom in or out on a position. This button on the lower left side of the action bar [point to icon] controls the visibility of the map. This blue-green dot is your position in the mine, and this arrow shows the direction you are looking."

"Be careful. In some circumstances, you can become disoriented and even lose your map."



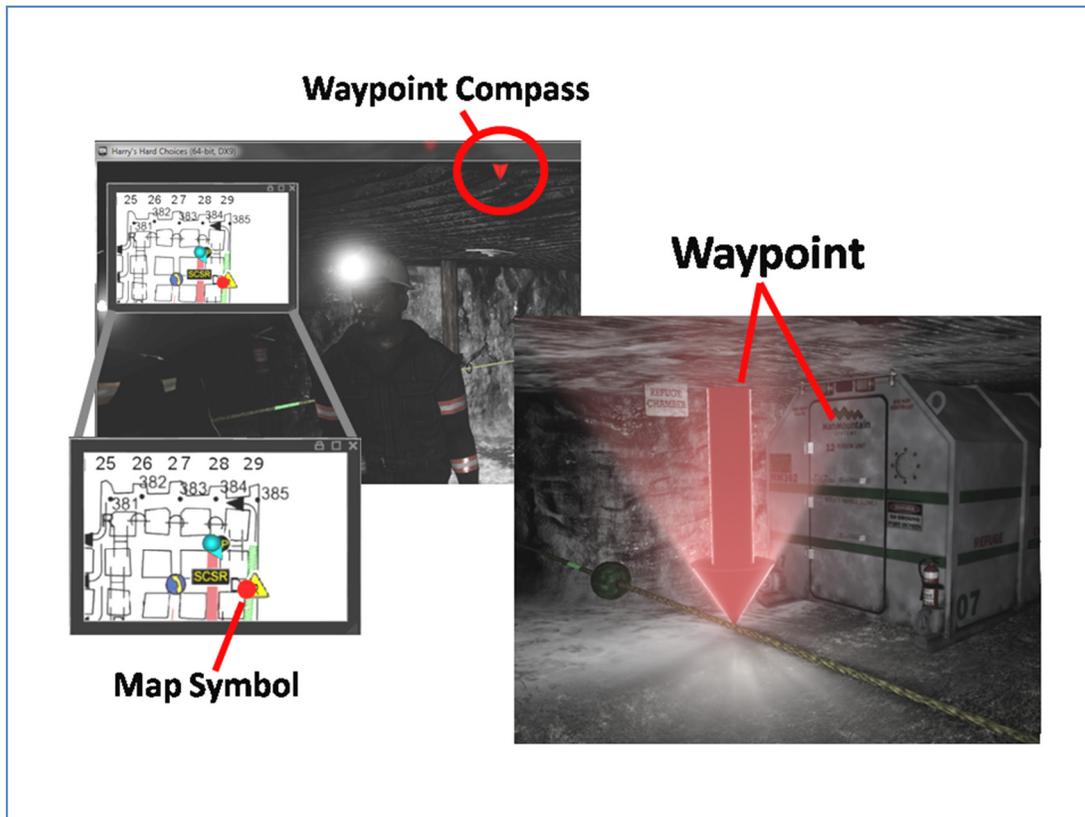
[Objectives & Waypoints]

"When you play the game, you're always working toward an objective."

"Objectives are attached to locations in the mine, which we call waypoints. For example, if I am trying to evacuate the section, I'll get a waypoint at the exit of the section. Or, I make a choice to go to an alternative refuge, a waypoint will appear at a nearby Refuge Chamber. The waypoint is the place I'm trying to get there based on the choices I've made. If you play games, a waypoint is basically like your active 'quest'."

"A waypoint looks like this in the 3D environment. It's a red bouncing arrow." [Point to 3D arrow and illustrate bouncing.]

"The waypoint is also represented on your mini map. On the map, it looks like a red dot like this one." [Point to red dot on map.]

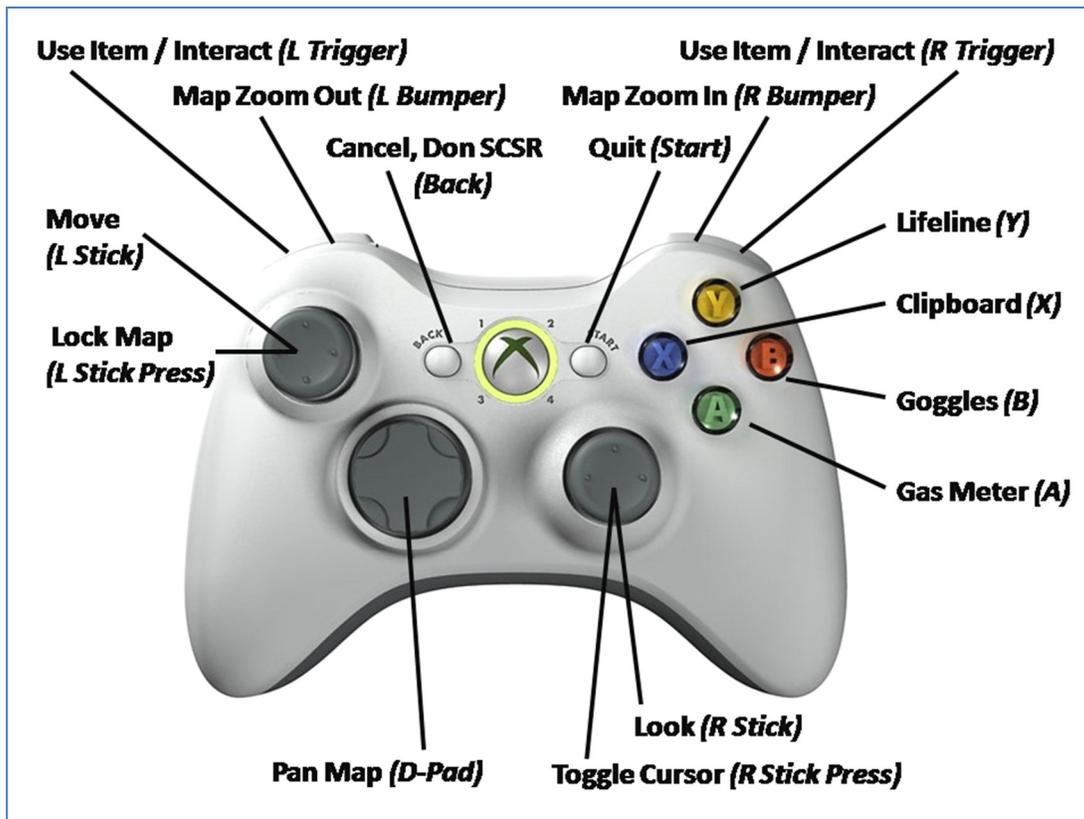


[Waypoint Compass]

"Finally, there's a 'compass' direction on the top of the screen that moves back and forth across the top." [Point to compass direction tick]

"The compass arrow shows my relative orientation to the waypoint. So if the compass arrow is in the center of my screen, it means I'm looking directly toward the way point, "as the crow flies." If I could walk through the walls in a straight line, I would eventually hit the waypoint. In reality, you'll have to navigate the mine using proper protocols to get there."

"So to summarize, each waypoint is presented by a 3D arrow, a 2D dot on the map, and a compass direction." [Point to each in turn.]



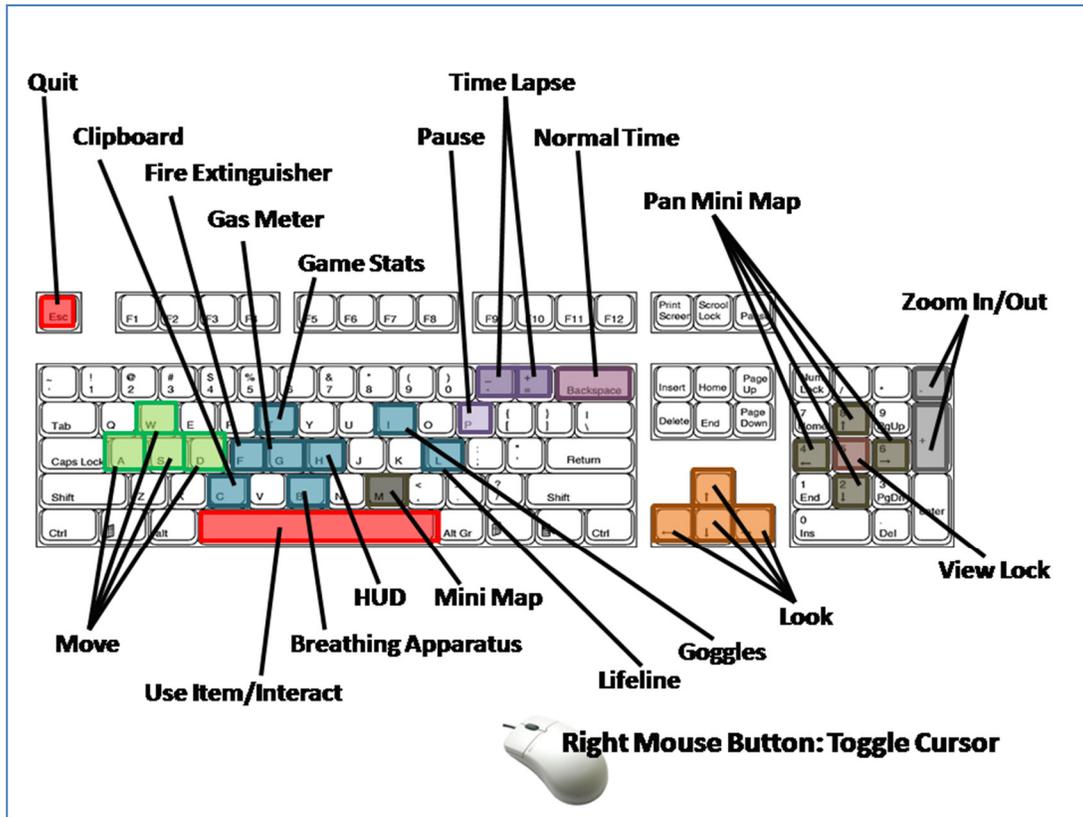
[Gamepad]

[This slide is optional, if Gamepad is used as interface device]

"To play the game, you'll use an XBox gamepad."

- "This stick is used to move." [Point to Left Stick]
- "This stick is used to turn your head." [Point to Right Stick]
- "This pad controls the mini-map" [Point to D-Pad]
- "The left trigger is used to use items and agree with characters." [Point to left trigger]
- "These buttons are used to invoke equipment, such as the gas meter, safety tether, and goggles." [Point to the set of 4 color buttons]

"You do not need to memorize these controls. Feel free to refer to this cheat sheet at any time." [Note: Quick reference card should be available]



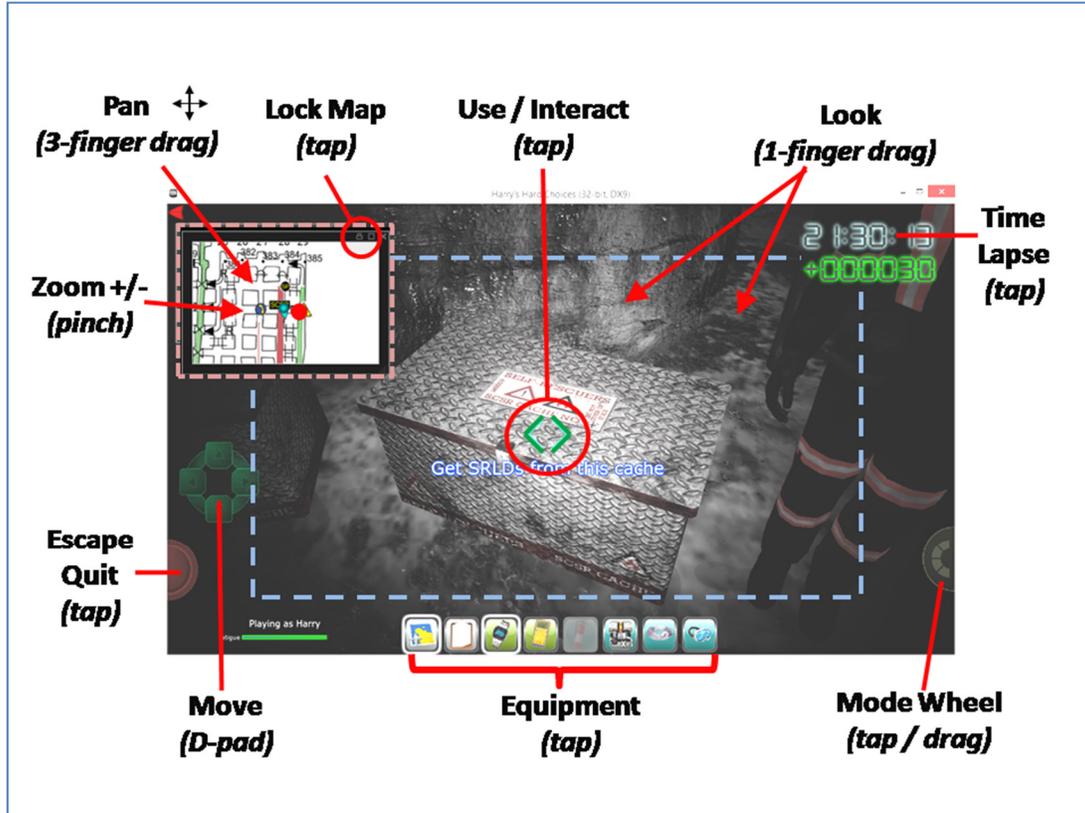
[Keyboard+Mouse]

[This slide is optional, if keyboard+mouse is used as interface device.]

"The keyboard and mouse can be used to control all game functions."

- "The 'W', 'A', 'S', and 'D' keys are used to move." [Point to Keys]
- "The Mouse is used to rotate the head." [Point to Mouse]
- "The numeric keyboard is used to manipulate the mini-map."
- "The space bar and left mouse button may be used to interact with people and objects. [Point to both]
- "The equipment controls are mapped to keyboard keys phonetically. For example, 'B' for breathing apparatus, 'G' for gas meter, 'T' for goggles ('eyes'), and 'C' for clipboard." [Point to each in succession]

"You do not need to memorize these controls. Feel free to refer to this cheat sheet at any time." [Note: Quick reference card should be available]



[Touch / Gesture]

[This slide is optional, if touch / gesture is used as interface device.]

"The gesture interface can be used to control all game functions."

- "The virtual D-pad can be used to move." [Point to D-pad]
- "Drag in the 3D view to rotate the head." [Point to 3D viewport]
- "Manipulate the mini-map using drag and zoom gestures that start inside of the map. You can drag beyond the map borders." [Point to mini-map]
- "Tap on an object or person to interact with them." [Point to <>]
- "Tap on the equipment icon on the action bar to use that type of equipment." [Point to the action bar]

"You do not need to memorize these controls. Feel free to refer to this cheat sheet at any time." [Note: Quick reference card should be available]

# How many can you save?

[Prologue & Start]

"Ok, that's it for the tutorial, so let's go ahead and get the game started. You have \_\_\_ minutes, so try to save your crew and get the highest score that you can. During that time, you can restart the game as necessary."

"The game will start with a 3 minute 'Prologue' that provides sets up the emergency. Don't press any buttons on the controller during the prologue, or you'll skip it."

"After the 3 minute prologue, you'll have to meet with your crew to decide what to do."

[Hand controller to user and start game]

"Feel free to ask me any questions for the first \_\_\_ minutes. Good luck!"