

Fullerton Exercises

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Exercise 6.1: Below the Surface - Take the subject of the last book or news article you read and think of its systematic aspects. Are there objectives? Rules? Procedures? Resources? Conflict? Skills to be learned? Make a list of the systematic elements of the subject or activity. Do this several times per week with different types of activities or hobbies.

News Article	Parents are utterly exhausted. Has kid sleep always been this bad?
Objectives:	To inform readers about some of the causes and consequences of sleep deprivation in parents
Rules:	To support the provided information with verified sources
Procedures:	Manage electronic devices before bedtime; Ensure bedtime routines (e.g. storytelling, soft music, meditation, etc.)
Resources:	Research studies, historical examples, interviews
Skills to be learned:	Analyzing information, fact checking, comparing recommendations with experience

Book	Freakonomics
Objectives:	To understand human motivation, incentives, cheating, data interpretation, and correlation/causation
Rules:	This book uses data to make new assumptions about society
Procedures:	How to
Resources:	Data in various subject areas,
Skills to be learned:	How to interpret data and see how it can be used in untraditional ways

Activity	Going to the Gym
Objectives:	Become stronger and healthier
Rules:	Athletic attire and shoes required. Warm-up ten minutes before

	weightlifting, one hour of working out, cool down with cardio. Working out to failure. Return weights after finishing the exercise. Wipe down the machine after using it.
Procedures:	Workout plan with 3-4 sets of 6-10 repetitions per exercise, each week increasing in number of repetitions or weight.
Resources:	Classes, Books, Coaches, Trainers, Youtube, Articles.
Skills to be learned:	Different workout plans, new exercises, different cardio activities.

Sport	Coaching Basketball
Objectives:	Teach a team of grade 11-12 boys how to play basketball with our school's plays.
Rules:	Court boundaries, fouls, travels, double dribbles, up and down, following drill directions. All players must work hard and communicate with one another.
Resources:	Team playbook. Basketballs. Basketball court. Score Clock. Medical kit. Reversible jerseys.
Skills to be learned:	New plays for the playbook. Integrating new students into the team and plays.

Exercise 6.2: Game Deconstruction - Take one of the games you have analyzed in your game journal and create a "game deconstruction" presentation. Analyze the formal, dramatic, and dynamic elements of the game. If you can, create a PowerPoint presentation from your analysis and organize an opportunity to present this to an appropriate audience. Lead a discussion of your ideas following the presentation.

The link below leads to our group's deconstruction of Super Mario Bro's.

[Super Mario Bros Deconstruction Powerpoint](#)

Exercise 6.4: Blue-Sky Brainstorm - In this exercise, use the techniques previously described to do a brainstorm for a “blue-sky” project. By blue sky, I mean that this project could not technically be made today, but we are going to pretend it could. The challenge is to come up with ideas for a “remote control” for a stereotypical character. Choose a character from this list:

Character:

What does the character do?

What makes the character interesting?

What aspect of the character would it be engaging to control?

How does the character react?

Does the character have free will?

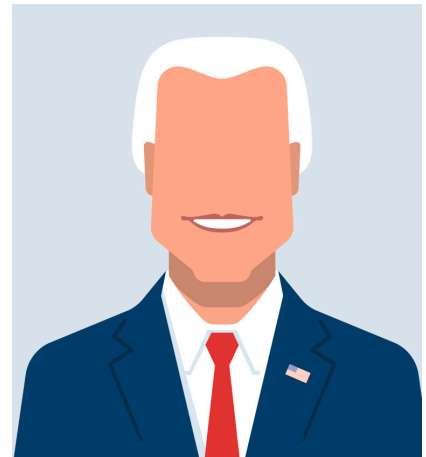
Features for your imaginary controller.

What will it look like?

What could each button do?

The character is a politician. Their avatar makes them interesting, as well as the options for action that are listed on their ‘remote control’. They also have power to make decisions over others, which makes them enviable, although they are unpredictable. The character reacts by never really telling you what they think and never directly answering questions. You don’t know what actions they are going to take until they take them. Buttons on the controller would be:

- Flies off the handle
- Directly lies to your face
- Accepts bribe in exchange for small favor
- Ignores player to visit son attending Harvard
- Makes societal changes based on the wishes of most players
- Makes societal changes based on their own beliefs
- There is also an ‘up’ ‘down’ ‘right’ ‘left’ and ‘select’ button to spell out words and add dialogue.



Exercise 6.5: Exquisite Corpse - This version of the game is played with words. Everyone writes an article and an adjective on a piece of paper, then folds it to conceal the words and passes it to their neighbor. Now everyone writes a noun on the paper they are holding, folds it again to conceal their word, and passes it to their neighbor. Repeat with a verb; repeat with another article and adjective; finally, repeat with a noun. Everyone unfolds their papers and reads the poems they are holding aloud. One of the first poems written this way was: “The exquisite corpse shall drink the new wine,” which is how the game gets its name.

We came up with:

- “The silly monkey throws the red bike”
- “The drunken sailor corrals a muddy pig”
- “An angry cyclist spans an angry goose”

Analysis: The mechanics of this game (writing words in isolation and passing them along without knowing the full context), are premised upon the creation of surprise and spontaneity. The disjointed contributions challenge the players’ creativity and expectations. It also forces participants to abandon control over the final outcome through its collaborative nature and unpredictability. This approach could inspire other forms of games, particularly those that focus on narrative building, problem-solving, and collaborative efforts. It could also influence games to provide additional constraints or restrictions (i.e. rules, mechanics) to stimulate innovative solutions and new ways of thinking. Finally, the game Exquisite Corpse demonstrates how intentional game design can encourage outcomes that extend beyond the initial expectations of the players and game designers (as every final product is likely to be different and unique).

Exercise 6.6: Do It - Now it is time to brainstorm your own idea. Get a potential team together—either in class or a group of friends who are interested in working on a game with you. If you cannot get a group together, do it on your own. As you did in Exercise 6.4, in the blue-sky brainstorm, state an interesting challenge for your game, set up a whiteboard or a sheet of butcher paper, and use the techniques previously discussed to generate 100 ideas related to your challenge in 60 minutes. This might sound like a lot, but if you can keep the energy level up, you can do it!

Challenge for the game: **scenarios/events that would teach survival skills**

1. Plane Crash	2. Creating a bow and arrow	3. Splint a broken leg	4. Prevent frostbite
5. Your boat drifts away when you’re camping on a large remote island	6. How to use a bow and arrow	7. Diagnose a concussion	8. Treat frostbite
9. Lost in a forest	10. Creating a fishing rod	11. How to float in water	12. Treat sunburn

13. Lost in the ocean	14. Setting up fishing traps	15. How to make a life jacket	16. Avoid scorpions when you sleep
17. Landing in the new world	18. Catching lures	19. How to desalinate seawater to drink it	20. How to keep nightwatch
21. WWI: John McCrae	22. Tying lures	23. Patch your boat	24. How to read a map
25. How to start a fire	26. Tying ropes	27. Keep your shelter dry	28. Rock climb
29. Where to find firestarter	30. Which knot to use	31. Drain flooding in your trench	32. Rappelling
33. How to use flint to start a fire	34. Bear safe a camp	35. How to start a fire with wet wood	36. Foraging
37. Setting up a tent	38. How to setup a warning system	39. How to cut barbed wire	40. Mushroom Identification
41. Setting traps for animals	42. Preventing gangrene	43. How to reload your Ross Rifle	44. How to hide the smoke from a fire
45. Where to set up traps for animals	46. Preventing Trench foot	47. How to keep your ross rifle clean	48. Take care of a sprained ankle
49. Identifying deer trails	50. How to apply first aid	51. How to make your ross rifle functional	52. Hike a scramble
53. Identifying rabbit trails	54. How to clean a wound	55. Replace your ross rifle with a lee engfield rifle	56. Build a tree pit
57. Hunting	58. Dress a wound	59. Use mud to secure a shelter	60. Survive an avalanche
61. Dress a rabbit	62. How to prevent rats from reaching your food	63. How to reinforce your trench	64. Barter with a language barrier
65. Butcher a rabbit	66. Survive a gas attack	67. What is a fair trade for canned food	68. Build a litter
69. Preserve rabbit meat	70. How to put on a gas mask	71. How to understand a friend's death	72. Cross rapids
73. Dress a deer	74. Create your own gas mask with a cloth	75. Assemble a welbike	76. Repair clothes

77. Butcher a deer	78. How to neutralize the chemical gas	79. Signal for help	80. How to negotiate a trade deal
81. Preserve deer meat	82. How to purify water to drink it	83. Create a compass	84. How to plant seeds
85. Dress a rat	86. Remove shrapnel	87. Use a compass	88. WHEN to harvest crops
89. Fishing	90. Remove an arrow	91. How to stay cool in the sun	92. How to store crops
93. Clean a fish	94. Stitch an injury	95. Survive a desert	96. Store food away from animals
97. Smoke Salmon/Fish	98. Splint a broken arm	99. Prevent sunburn	100. How to pilot and land a parachute

Exercise 6.7: Describe Your Game In one or two paragraphs, describe the essence of your game idea. Try to capture what makes it interesting to you and how the basic gameplay will work. State your “X”—both razor and slogan—as a part of your game description.

Essence of the game:

Our game is centered on survival scenarios, which are inspired by historical events (e.g. trench warfare during World War 1). Within the game, there are multiple levels in varied settings that will teach students a combination of survival skills and other subjects, including history and outdoor education. These settings can vary depending on the time period being used, and can incorporate real events and people to make the game historically accurate. Players must make decisions based on the events and the contexts of the level that will change the storyline and potentially secure their failure or success of the level. The razor of our game is “Telltale-game style and choose your own adventure meets history” and our slogan is “Can YOU change history?”.

Exercise 6.8: Write a Treatment - Take the description you wrote in Exercise 6.7 and expand it into a three- to five-page treatment for your game idea. A treatment does not go into great detail about every aspect or level of the game; however, it will address these top-level questions about the idea.

Who is the game for?

Based on the varied contexts available within the games, the game has a wide range of potential players. It is geared towards those in an educational setting. However, some of the settings, for example the history setting, would appeal to individuals who have a personal interest in learning about certain topics. The setting will change depending on the level and take the player through the life choices of a historic figure, basing it in reality and authenticity. The game will be for students in history classes but it could be expanded to science, english, and beyond as each level is catered to a different historically significant individual in that field. The choices the player makes will show the significant moments that led those historic figures down their paths and resulted in their eventual historical impact. It could also be used as a learning tool for adult learners new to a field or culture and necessitating understanding the value of the contributions of their historic figures.

What will make it appealing to that market?

This game can sometimes make dry or complex topics more interactive and engaging. The wide array of settings can appeal to varied audiences and potentially expose them to new learning opportunities. Additionally, these varied settings will appeal to a wide array of learners and hobbyists. For example, an individual who is personally interested in WWI or an individual who is studying the topic for academic requirements would both be interested in the levels of the game involving WWI.

This game will also be appealing to the market because it will allow for players to access the game on a mobile or web app, which means they can easily access the educational game like they would any other digital game. The game is able to save an individual's progress and will grant achievements, which will be shared online in a community. The social element of the game is appealing to the market since it creates an online community of users.

What is the formal structure?

As identified by Fullerton (2018), the formal elements of a game consist of its “underlying system and mechanics” (p. 189). These components are integral to the structure of a game, as they heavily influence the way that players interact with its story, characters, and environment. Accordingly, our game will rely on a turn based system using *Twine*, which is a text based platform that can be embedded with multimedia (e.g. pictures, videos, and sound). This web-based platform is compatible with devices that have access to online browsers. During the game, players can choose from various options when confronted with historically inspired challenges. This means that players can only initiate actions when it is their turn, rather than during real time. The purpose of this system is to replicate the ‘choose your own adventure’ style of play, which emphasizes the importance of player’s decisions on the outcome and narrative of the game.

Furthermore, there are several important mechanics that would also affect the gameplay. First, our game will have different pathways that players could take, which are dependent on choices made earlier in a game. As such, once a decision is made it cannot be reversed, unless a player restarts that level of the game. Second, there would also be limited resources available, such as ammunition, food, and ‘energy’ (which would be expended for each action that the player takes). And third, the relationship(s) between the players and characters in the game will be impacted by the decisions made by the player. For example, if the player chooses to spare a character from a particular faction, this choice would improve the standing of the player with said faction, while decreasing it with rival groups.

As a single player game, the primary source of conflict will arise from the environment and interactions with other characters. For instance, an enemy artillery barrage might not only damage the trench in which the player is stationed but also force them to make urgent decisions regarding survival. The damage could trigger cascading effects, such as blocking escape routes, destroying vital supplies, or altering the player’s strategic options for future turns/actions. It is hoped that these dynamic challenges immerse players in the game through their inspiration from similar real world events. In addition to environmental threats, interactions with non-playable characters (NPCs) will play a crucial role in the unfolding narrative. Ultimately, the story will evolve organically from the decisions made by the player, making each playthrough unique.

Consequently, the story and action will be both driven by and in turn influence the decisions made by the player.

The dramatic structure?

Our game begins by immersing the player in the primary setting - a desolate, war torn battlefield in France during World War 1. The player's avatar is introduced through a blend of narrative exposition and dynamic interactions with fellow soldiers in the trench. These early conversations not only reveal the character's backstory, including their motivations and personal struggles, but also establish the camaraderie and tension among the soldiers. From this point the game's narrative unfolds through a series of pivotal character interactions, strategic decision-making, and challenges that reflect the grim realities of trench warfare. As the player navigates missions that range from reconnaissance to surviving relentless artillery bombardments, the story deepens, revealing the physical and emotional toll of war. Each mission becomes the turning point, shaping the avatar's journey and forcing the player to confront moral dilemmas and the fragility of life in the trenches.

As the story progresses, the player is faced with increasingly difficult decisions that will influence not only the outcome of key missions but also the fate of the soldier's around them. The stakes rise as supplies dwindle, morale fluctuates, and the harsh conditions of war erode the spirit of the avatar and their comrades. Each choice, whether it's a tactical decision on the battlefield or a personal moment in the trench, impacts the relationships and alliances within the unit, shaping the narrative's branching paths. The dramatic arc of the game builds towards a climatic mission based on Canada's role in the One Hundred Days Campaign. The outcome will be impacted by the player's previous decisions in the game (e.g. who survives and who does not). Through this, the game will seek to explore the effects of war on the player's avatar, and reinforce the tragic consequences of the First World War. In the end, the game aims to leave the player not only with a sense of accomplishment or loss, but also with a reflection on the enduring scars of war.

Exercise 6.9: Feature Design Exercise, Part 1 - Think of a feature you would like to see added to one of your favorite games. I am sure you have plenty of ideas on this one. It does not matter how far-fetched or technically difficult the idea is at first because you are not going to actually build it. Rather you are going to illustrate how it works using storyboards and words.

Feature we want to see in our game:

1 - Cause and effect - the decisions the player makes impacts the storyline and the welfare of their character. They are able to enter their choice as free form text, which makes their decisions almost limitless. The AI modifies the storyline based on the decisions that the player makes.

TITLE CAUSE AND EFFECT

1 - CONFLICT



The trench fills with water

2 - CHOICE



The player decides to stay within the trench and move to an area that is not flooded but that is within his arcs.

3 - OUTCOME



The player is safe within the trench and is now out of the water.

4 - CONFLICT



The player notices that his socks are wet from standing in the water in the trench.

5 - CHOICE



The player decides to change their socks and to dry out their boots

6 - DECISION



The player's feet are dry, but he is no longer wearing boots as they dry.

Exercise 6.10: Feature Design Exercise, Part 2 - Create a visual storyboard stepping through the use of the feature idea you came up with for Exercise 6.9. Assemble the storyboard so that it tells a visual story of a player successfully playing the game. For example, the storyboard for Karaoke Revolution World Party could show all of the interfaces as if a player starts as a beginner and moves all the way to winning a prize. Present your idea to an appropriate group of people for critique, such as classmates or a game design club.

Scene	Description
	<p>Players begin the game by choosing their avatar and class, which will affect their relationships with other characters and available choices further in the game.</p>
	<p>Players also choose the setting that they wish to begin playing the game in. This choice, along with subsequent ones, will influence the settings of future levels.</p>
	<p>The first sequence has the player navigating an attack on an enemy trench. The player must choose the right course of action to survive the encounter.</p>
	<p>The player is attacked by an enemy soldier in the trench, and must make a decision on what to do. The enemy is killed, allowing the player to survive.</p>



This triggers a new event, where a blimp overhead explodes and crashes to the ground. The player must then navigate this new situation.



The player finds a tank, which they then use to escape the danger. This triggers the next level, which will make use of the new tool (i.e. tank) that the player has taken control of.

Images taken from:

DICE. (2016). Battlefield 1 [Xbox, Playstation, PC]. Electronic Arts.
<https://www.ea.com/games/battlefield/battlefield-1>.