ITEC1100
Interactive Multimedia Design

Project E: Game Design

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Mechanics

The game is called *Royal Liberation*. In a team of 5 players, players choose character avatars to represent themselves in-game. These avatars are all guards of the royal kingdom. New players start with a default avatar, and are able to purchase or earn other avatars with unique skills like increased mobility, weapon accuracy, range shooting, and size. In a first person point of view, the goal is to reach the scientific laboratory at the center of the opposing kingdom to save the prince. He has been kidnapped by skin creatures who plan to conduct tests based on his genes. Players use semi-automatic rifles that require reloading after thirty shots (Koff 2018), which is done by pressing the R key on a computer keyboard. To move the character around the map, players use the W key to move forward, A to move left, S to move backward, and D to move to the right. Pressing SHIFT allows the player to equip a shield, which is limited to three per individual. Pressing the spacebar allows the player to jump upward. The Q key can be pressed to execute a basic swing attack, where characters throw a punch when the skin creatures are in close range--too close to use the rifle. To use the rifle, players aim with a mouse and shoot by left-clicking. To fire automatically and repeatedly, players left-click and hold down for the desired duration or until 30 bullets have been used. There are multiple routes through the kingdom that the guards are able to pass through as separate maps, each with their own set of active goals. Areas include modern housing, outworn housing, a mining district, an industrial area, and farming land. For example in the industrial area, guards work together to find wood and metal supplies to fix a bridge that needs to be crossed in order to advance. In the mining area, guards search for two levers and one button to be activated in a certain order to open a big metal door into the safe zone of the lab. This requires verbal communication to figure out the order of activation, which is randomized in each game. As players explore the area, hidden and abandoned utilities can be picked up for later use. These include smaller objects like grenades or weighted nets. To initiate interactions with objects, use the mouse to right-click. The health bar of each player starts at fifty and worsens if directly hit by skin creatures. If a player were to run out of health, the player would collapse and can only revive after a teammate carries them to a predetermined health station. By standing within the station's boundaries, players regain two health each second. If all players collapse, it results in an automatic failure. The further players reach in a map, the density of skin creatures increases. To win the game, players work together to complete the map-specific goals. The game cannot be won without completing the goals. By completing them all, players are granted access into the lab and are safe from skin creatures. The timer stops when the last player's full character is inside the safe zone. The final scene shows individual statistics, such as kill accuracy in regards to head or body shots, personal damage taken, and total shots fired. Each game earns players coins, which can be used to buy character avatars.

Story

On a fall evening fifty years ago, there were seven giant helicopters that hovered across the kingdom while skin creatures jumped out one after another. Townsfolk ran into the safety of their homes, watching the infinite spawn of skin creatures pour out. They seemed to have experiments done on many, causing their skin to break and mold. While they look menacing, their only objective was to capture the prince off-guard and return to their own kingdom

laboratory. The prince is said to have the most delicate and angelic skin of all the land as well as thick, luscious blond hair. The skin creatures have endured many experiments on their own bodies, so buying similar bathing products to the prince does no justice. By taking samples from the prince, the skin creatures attempt to replicate identical cells to replace their own. Morning came quickly, and the skin creatures had all disappeared, confusing townsfolk. It was not an invasion. However, news broke out that the prince had been kidnapped just overnight! The skin creatures had been a decoy, sending security guards to town and freeing a pathway straight to the prince. Five skilled guards were assigned the mission to penetrate through the skin creatures' kingdom across the land. Through teamwork and communication, the team is trusted to return the prince unharmed.

Aesthetics

The game is rendered as realistic 3D graphics. The colour palette mostly consists of browns, greys, whites, and greens. These are the colours that players will see most often in the environment and on the avatar cosmetics. Houses are shades of brown and whites, the ground is grey stone and dirt, skin creatures are dusty pink, and green is seen in personal gardens as well as mold on skin creatures. The rectangular houses are made of either brick or stone and have two to three stories, casting shadows. The houses often have overgrown plants and ivy lining the sides, producing small colourful flowers. Stray cats can be seen spying from balconies, unbothered. The sky changes periodically starting with a strong mid-day sun, transforming into purple and red sunsets, and cloudy skies. Sounds accompany movement, such as heels on gravel or stone, rifle sound effects, and physical injury. Characters have unique one-liners that are said throughout the game, matching their personality and design. Skin creatures generate a whining sound when nearby, like a child receiving disappointing news. The background music is *Waltz Primordial* by Kevin MacLeod (2021), which captures the depth of responsibility and darkness.

Technology

This game is played on a desktop computer, or laptop. Players need access to the movement keys on the keyboard, and a mouse for shooting. Microphone and audio technology is also recommended to smoothly advance the game by communicating to team members. Otherwise, players are given the option for in-game text chatting. Owning a gaming computer specifically is beneficial in terms of graphics, refresh rate, and CPU. The game functions perfectly on any laptop, as long as there is enough storage and sufficient cooling if players were to play repeatedly. The 3D rendering and landscape detail may be demanding for some computers, so upgrading components may benefit if players strive for accuracy and competition.

Character Brief

Skin creatures are the antagonists in the game. Skin creatures closely resemble humans, but do not wear clothing. Any material on top of their own skin is classified as an irritant from the many experiments done on them. They do not see a purpose in clothing, since they have gotten rid of reproductive organs. Reproduction is done through cell mutation in a laboratory. Only skin creatures who are the least affected by experiments are taken in for

sampling to reduce undesired clone traits. Extra material on their bodies reduces mobility and range of motion. They are covered in skin with rotting flesh, and can be seen with mold around these open wounds. They have a swollen belly from internal decay, causing the liquids to channel into the stomach. Their arms end at the calves with their hands as horns, along with two fingers on the interior at the base of the horn. These horns are the skin creatures' primary mode of attack, through swinging and slashing. The arms make mobility and speed more difficult, the extra weight disrupting balance.
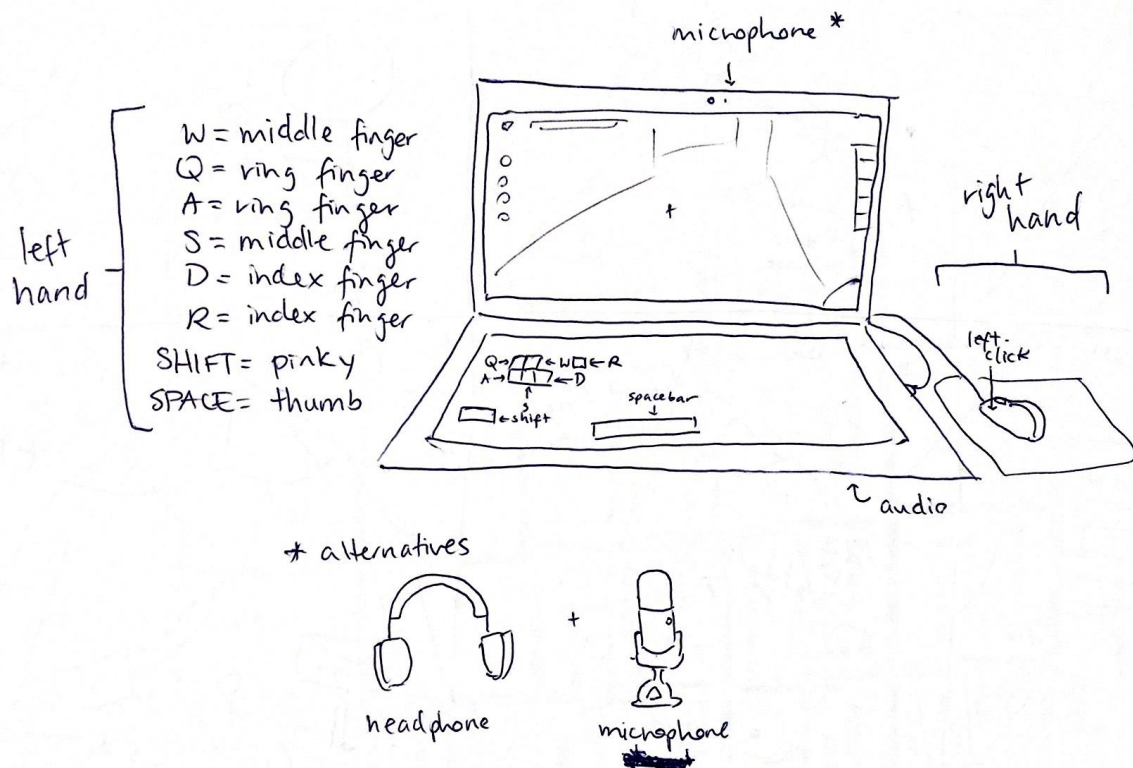
SKIN CREATURE

A skin creature in detail, front view.

Storyboard
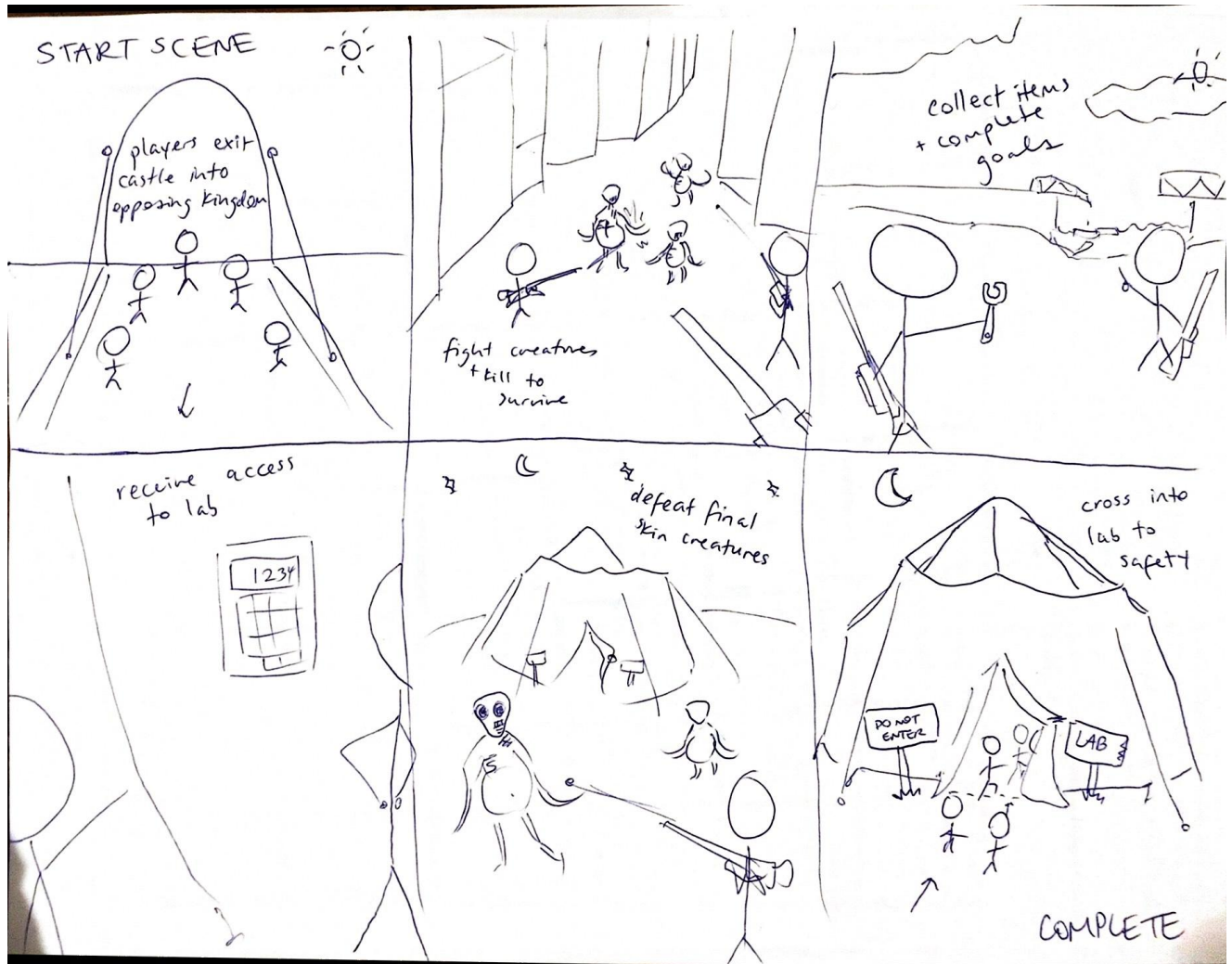
Step by step process of how to complete one game.

How to play using the keys and external technology.

Design Process

      Many changes have been made to the game. The game started off as a linear story about patients escaping a human testing center, but replayability would be extremely limited. Ideally, the game would be infinitely replayable due to the various maps and social connections. Slowly, horror-related ideas came to mind about a team shooting skin creatures in complete darkness to fully grasp the surprise lens. However, this idea has already been produced in many modern day horror games. My main goal was to include realism and action to keep users invested, and cosmetic options for expressive freedom. Graphics have the power to attract many people on a variety of mediums, so making the game visually profound in a fast-paced environment increases immersiveness and connection among players. After speaking to peers for feedback on the game mechanics, there was a conclusion that the game would be too repetitive if the main objective was killing creatures. After the feedback, specific obstacles (like fixing bridges) were added to each map so that players have an active goal alongside the passive one (saving the prince). Below is an iteration of the user interface design and aesthetics. Elements from aesthetics to character design are included to simulate realistic gameplay.

Perspective of one player while playing.

References

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Koff, S. (2018, April 18). *Assault weapons and the AR-15: Defining the Gun Debate*. cleveland.com. Retrieved November 29, 2021, from https://www.cleveland.com/nation/2018/04/assault_weapons_semi-automatic_1.html.

McKnight, R. (n.d.). Sexual Reproduction Removes Harmful Mutations. Reducing Mutations. Retrieved December 1, 2021, from https://www.cs.hmc.edu/~rmcknigh/projects/bio52-project3/bio52-mutation.html#:~:text=When%20an%20organism%20reproduces%20asexually,in%20individuals%20and%20in%20populations.

You won't find this anywhere else. Incompetech by Kevin MacLeod - Free music for film and media. (n.d.). Retrieved December 1, 2021, from https://incompetech.filmmusic.io/.