Project 3: Research and Analysis

Trough Dunk, a Shrek Super Party Minigame (Mass Media)

Trough Dunk is a minigame in Shrek Super Party where three players stand in foreground and throw apples at the target of a dunk tank which the fourth player controls in the background. When a player hits the target with an apple, the player controlling the target falls into the dunk tank, then is swapped with the player who hit the target. Points are awarded for time on the dunk tank, and for hitting the target. Trough Dunk can be played with one to four players, but if there are less than four people playing, bots fill the rest of the positions. This game is very similar to the one we are creating, so there was a lot for us to learn from it.

One thing that was done right for Trough Dunk was giving the people in the foreground difficult controls. The players throwing apples have a crosshair that moves back and forth very quickly, so they are forced to use precise timing to hit the spot that they want to hit. I believe this adds to a lot of value to the game. It makes the role more challenging and is more engaging for the player, opposed to if they had a perfect launching system like a gun where all they have to do is point and shoot. They are not given impossibly difficult controls like in Surgeon Simulator or QWOP, but difficult enough to where you have to put some thought into what you are doing. We were able to use this to make our game better by making our cannons more difficult to control. Originally they would launch cannonballs at such a high speed that the people controlling cannons could point straight at the runner and hit them almost every time, but we changed it so that they have to arc the cannonball and predict where the runner will be.

Something that Trough Dunk did not do very well is balancing for people who have less experience. The game starts with a random player controlling the target, and never gets any more or less difficult for the players throwing apples. If a player is having a hard time grasping

the launching mechanics, it is a terrible game for them the entire time. If the player who is not great at the launching portion of the game is not lucky enough to start on the dunk tank, they never get a chance to do that, and end the game with zero points. We do not want our game to be like that. We do not want to make it so that the winner is random, but we do want to implement a mechanic that makes it so people of any skill level have a chance to win and get to experience both roles that the game offers. To accomplish this we plan on making it so that the longer time somebody has spent as a cannon, the easier it gets for them. We might give them a larger splash effect, faster rate of fire, or something along those lines will help them hit the runner.

Trough Dunk is very similar to our game, so it we were able to directly see how the decisions that went into making it would impact our game if implemented in a similar or different way. The biggest takeaways were to make the launching mechanic not as trivial as gun, but not impossible to control, and to balance the game so that skilled and new players could have fun playing together.

Robot Unicorn Attack (Adult Swim)

Robot Unicorn Attack is a single player side scrolling platform jumper. The player controls a robotic unicorn which has to jump across platforms and dash through rocks with the goal of reaching as far left as possible. The sideways movement is at a fixed speed, and the player only has two controls, jump and dash attack. If the player hits a wall, rock, or falls off the bottom the screen, their run is over. This game may seem like an odd choice to do research and analysis on, but I believe it offers a lot of insight on what makes a good platform game and can help us enhance the experience for the platform jumper portion of our game.

One thing that worked for Robot Unicorn Attack but I do not believe would work well for our game is having a fixed lateral speed for the player. While playing the game, I took note of

the fact that this really limits the choices of the player. Only controlling one dimension of movement means that there are not a lot of places you can go. This worked for Robot Unicorn Attack, but in our game the player controlling the platform runner will be dodging projectiles fired from the other three players, so limiting their movement choices that much would make it too hard for them to dodge what is being fired at them. Another reason I do not think this would work for our game is the it requires to the player to always be looking at what platforms are becoming available for them, which takes a lot of focus. It would take a very talented gamer to be able to focus on what platforms are appearing while also dodging what is being shot at them. Adding that mechanic would only make our game playable to expert gamers, which is not what we are going for.

Something that Robot Unicorn Attack does well is the inclusion of a double jump. We did not originally have one planned for our game, but while playing I found that it adds a fun new set of decisions for the player. In Robot Unicorn Attack you can double jump, but it can often be a risky move. Sometimes you need it to save your life, but after using it you are left helplessly falling until you touch a platform. Adding the double jump into our game could allow the player to reach new heights and dodge cannonballs that they are falling towards, but if used at the wrong time it could leave the player helplessly falling from a higher place.

Another thing that Robot Unicorn Attack does well is increasing the gamespeed as time goes on. The idea of making survival progressively more difficult for the platform runner would integrate into our game very well. This way if a player is far more experienced than the rest, he would not be able to control the runner for the entire duration of the game. This would help with the balancing of the game, and would make it more fun for experienced players who find it too easy to dodge cannonballs at the default settings.

Robot Unicorn Attack is not very similar to our game, but offered a good look at a different style of platform runner that we can use to influence that portion of our game. The biggest takeaways are that a fixed speed side scroller would most likely make the game too difficult for the runner, double jump is something we should include, and progressively increasing difficulty over time would help balance the game.

Balloonatic, a Mario Party 7 Minigame (Hudson Soft)

Balloonatic (a combination of words “balloon” and “lunatic”) is a minigame found within Nintendo’s Mario Party 7, in which three players compete against one player in a foreground versus background style of play. Similar to our game, the three-player team is shown in the foreground manning cannons, with instructions to shoot them at the final player moving about in the distant background.

Although this game is in many ways similar to ours, one major difference between our game and Balloonatic is the behavior of the individual background player. While Balloonatic has him flying a hot air balloon in an attempt to dodge cannonballs for thirty seconds, we take a different approach. Our game places the background player (which we have coined “runner”) in a platforming experience, where he must not only dodge cannonballs, but navigate the platformer map to find powerups.

Furthermore, these two games differ in the style of team mechanics. It is true that they are both three-against-one games; however, Balloonatic simply lets players choose what role they would like to play at the beginning, and locks those roles in place for the remainder of the game. In contrast, our game revolves around a king-of-the-hill style team rotation system, in that once a cannon kills the runner, that player then switches places with the runner and the games continue with the new modified teams. In our game, players accumulate points by simply spending time as the runner, so this frequent team switching is encouraged. All in all, although

the two games are quite similar mechanically, these two above points present significantly different player experiences.

Pocket Tanks (BlitWise Productions)

Pockets Tanks is a turn based solo (with a computer AI) or two players artillery game where players control tanks and aim to inflict the most damage on the opponent's tank while protecting their own tank by firing various kinds of weapons that each have their advantages and disadvantages.

The mechanics of the game are quite simple. Each game consists of ten rounds where each player takes a turn. At the start of the game, twenty weapons are shown and players take turns choosing among the weapons or can randomly assign the remaining weapons at any given time. After the terrain is randomly generated and the two tanks are positioned some distance apart, upon each turn, players choose a weapon and make use of discrete sliders that set the angle and "power" of firing. Each weapon either creates some sort of defense (like a wall) to protect the player or to obstruct the opponent from firing in the direction of the player or inflicts a certain amount of damage to the opponent. The amount of damage at the end of the ten rounds constitutes the players' points, and, so, the objective of the players is to cause the most damage to the opponent.

From the viewpoint of the prototype, there are some important comparisons to consider and takeaways that can be seen from experiencing Pocket Tanks. Firstly, the turn based nature of Pocket Tanks leads to a very strategic feeling game, especially given that the weapons can be chosen prior to the start of the game and a right or wrong choice of a weapon at some given turn can often ultimately decide the game. Secondly, movements of the tanks are restricted (up to four moves per game and the distance a tank moves is predefined), and, so, as the game goes on, players often get a better sense of what angle and power to use for firing weapons. On

the other hand, in the prototype, we use a real-time based approach where all players can perform actions always (and there is generally no constraining of the actions a player can take at any given moment). These two differences lead to the prototype feeling like a more active action based game rather than a more passive strategy based game. There are of course merits to each. Pocket Tanks often feels like a more intense game as the game progresses and players look intently at what the opponent does each turn, hoping that the damage they cause does not exceed what they expect. In quite a different manner, the prototype, especially when four players are playing, feels more like a free-for-all kind of game where players are racing against time trying to gain and secure the elusive runner position as the primary objective is staying as the runner instead of damage caused while being in control of a cannon. While this might seem like an equivalent goal, it still feels different enough and leads to quite a different kind of interesting gameplay experience.

One major takeaway from Pocket Tanks is how to construct weapons or rather powerups for the prototype, and, especially for the players controlling cannons. Pocket Tanks does a good job of creating a balanced and wide range of weapons and even has a special target mode where players can test out their weapon firing skills, i.e., setting the angle and power and seeing how accurate they are at firing at some targets. The choice of weapons prior to a game start also leads to a feeling of making truly important decisions. Somehow incorporating this in a future sprint is a good idea, even if the mechanic is quite different, which it likely will be. One seemingly nice way of implementing this is to perhaps give players, in inverse proportion to the amount of time they have spent as the runner, weapons of increasing ease of use.

ZombiU (Ubisoft)

ZombiU is a classic example of an asymmetric game whereby players generally have varying levels of information and observability, engage in different mechanics, and assume

different roles. ZombiU in particular makes use of the Wii U controller which has a separate screen from the main television or monitor that is usually used for most, if not all, of the gameplay.

In the multiplayer two player modes of the game, one player has access to a map and spawns zombies with the aim of being able to surprise attack or scare the other players controlling the humans and inflict damage on them. Meanwhile, the other player has to perform an objective like trying to survive for as long as possible or killing the most zombies. Players take turns in these roles. Furthermore, other non-competitive modes whereby one player suggests actions and controls inventory on the smaller second screen while the other controls the human in a cooperative style setting is also allowed for by the game and the hardware it runs on.

What ZombiU does well in is indeed in creating an interesting experience whereby players can engage in completely different games that seemingly combine to form a much more richer strategy and survival mechanics filled game. Separating the mechanics and the gameplay allows for concentrating on just performing a small set of actions and planning or working with the constrained environment that is presented. On the other hand, the prototype has a more fluid and less rigid sense of asymmetry whereby all players have essentially full information or observability and can switch roles depending on how the game progresses. In fact, in the prototype, players are encouraged to take upon one of these roles, the runner. This means that players need to think about and strategize playing in either of the cannon and runner roles.

In both games there is one role that seemingly has an advantage, the zombie spawner in ZombiU and the runner in the prototype. That said, in ZombiU, since in the competitive multiplayers modes players take turns in playing each role, the difficulty here arises from learning to successfully play each role well, while, on the contrary, in the prototype, since

players can keep switching roles, the difficulty here arises from learning to quickly leave the role of a cannon and switch to the role of the runner. While subtle, these differences can be important to keep note of as the game is introduced to new players and tutorials are added.

In particular, one concern that we face with the prototype that will hopefully be handled elegantly and soon is the fact that we want all players to enjoy playing each role. Since the objective is defined as the time spent as being in one role, this is a little challenging. Another option is to change the object (like having number of times runner was successfully hit as a proportion of the cannon balls used or something to that effect.) One such modification to keep note of in the prototype is that the score awarded for being the runner during each given unit of time increases as a function of the percentage of the game already completed. This eases any of the advantage a player gets for starting as the runner and provides an opportunity for other players to still win the game by being the runner for some considerable amount of time towards the middle or end of the game.

Assassin's Creed Revelations: Den Defense Minigame (Ubisoft)

Assassin's Creed Revelations came out with a minigame in addition to its first-person stealth assassination gameplay, called Den Defense. The basis of Den Defense is that there are bases that a person can capture for benefits for their assassin community. Den Defense is a game where a single player controls the rooftops and a weapon to shoot oncoming troops who are trying to destroy the base.

Den Defense is a single player game, where the player commands troops on rooftops. The troops are AI/automated so that they shoot people who are coming to invade the base. The player themselves control a "master" assassin that commands the rest and can shoot the oncoming troops. The player can target the enemies and their character will automatically shoot the target of their choice without aiming. This is similar to our game in that there are two

opposing sides and the goal is to shoot down/kill the side who doesn't have any chance of shooting back. Our game has the added functionality of adding a player to control the runner who is dodging the projectiles. We also have players controlling cannons which is similar to the multiple shooters in Den Defense, but instead of having AI, our game utilizes a multiplayer experience to control the shooters. Our shooters are also on their own teams, shooting to further their own agenda. Our goal is also a bit different, in comparison to Den Defense, the goal of the game would be to be the attacker of the den and to attack for as long as possible. While there is no way to attack in our game, the person who is the runner/dodging projectiles the longest is the winner.

Den Defense is pretty juicy with its projectile fire line and glowing targets when the player has locked onto a victim. There is also edgy adventure music adding to the excitement of the player when defending their base. Our game has a projectile fire line, which is pretty juicy and nice to look at. We are looking into having music for our prototype to help the player have a more fun and engaging experience.

Part of the success of the Den Defense mini game comes from the success of the Assassin's Creed franchise and the fact that players wanted a different experience from the usual stealth, stalk, and kill playstyle that Assassin's Creed employs. The mini game is pretty fun in itself, with the race against time to stop the oncoming attackers. We hope that our prototype can also give players the same sense of satisfaction when the players avoid all the projectiles to stay as the runner the longest, using the same race against time mechanic to keep players wary of their circumstances.