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Pacing for Dramaturgy
Abstract

This thesis is a study on how game mechanics affect dramaturgy through pacing within the multiplayer MOBA genre of video games and serves as an addition to ease dramaturgic design for future games. The thesis contains an introduction of drama and some of related terms in addition to the MOBA game genre, its format and a short history of the genre. To compare the observations and analysis made in this study, previous work on both dramaturgy and pacing have been recollected.

Keywords

Dramaturgy, dynamics, games, mechanics, MOBA, pacing.
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1 Introduction

The challenge of creating drama within a game is compounded by our limited control over the games we create. We don’t-and can’t-know the precise details of how our game will play out. Each and every time it is played. We are not the authors of the events of the game: we cannot craft the game’s drama directly, the way a storyteller scripts a story. Our task is more indirect. We cannot create drama; we can only create the circumstances from which drama will emerge.

(LeBlanc, 2004, p. 3)

If we go by LeBlanc’s words, there is no way to create drama itself but only to pave the way for it. That is why this thesis will be an investigation of how to simplify or clarify the tools to create possibilities of managing dramaturgy. To create the tools we need for this management we will need an idea of what drama is and what we are looking for to create. For that the words chosen to describe this drama would closer be “emotionally engaging” from which Evan Hill has an article depicting a theory that has chosen to be regarded as useful for this thesis cause. The fundamental idea of Hills work comes down to that the drama is based on suspense, as in waiting with an uncertainty and by that build dramatic tension. (Hill, 2013, August 24)

What is dramatic tension then? It’s our level of emotional investment in the story’s conflict: the sense of concern, apprehension, and urgency with which we await the story’s outcome. (LeBlanc, 2004, p. 6)

To study a part of what makes up dramaturgy, pacing produced from game mechanics has been chosen as the targeted area of research for how it affects the drama due to its attributes of holding players from moments of calm and low activity to turbulent high paced situations.

1.1 Purpose

The aim of this thesis is to dissect a number of games specific mechanics for how they affect dramaturgy through the variation of pacing they produce to help with forging dramaturgy for future competitive multiplayer games. To narrow it down so each mechanic or system gets proper insight, the Multiplayer Online Battle Arena (MOBA) game genre has been chosen for its popularity, game session length and for having a wide variety of pacing.

With this data it should become easier to design games for a more consistent dramaturgy with the insight of how a set of games mechanics affect it by changes in pacing.
1.2 Problem Statement

Pacing in games is as common as pacing in for example movies or theatre but there tends to be deviations in the dramatic structure (Gorman, 2014) or tools (Hornung, 2005, pp. 1-3). Games properties of holding players in higher or lower dramatic tension to keep the players and audience engaged is still like any movie of theatre dramaturgy as they contain components that change the pace.

I would like to analyze a games possible dramatic experience by trying to answer this question; how does the pacing of mechanics affect the dramaturgy within the MOBA video game genre?
2 Concepts

This is a list of concepts used in this thesis.

2.1 Inevitability

Inevitability stands for what is already determined. An event that is impossible to prevent would then be inevitable (LeBlanc, 2004, p. 8). In this thesis it will be used to describe situations when a player can calculate the outcome of specific situations, thus knowing what is certain to occur.

2.2 Uncertainty

Uncertainty is contrary to inevitability, a state of a player who is unable to predict an outcome of a given situation and will doubt in taking possible decisions (LeBlanc, 2004, p. 8).

2.3 Pace

Pacing is a sort of rhythm for the intensity of action. It is used to point out how tense situations are. Pace is frequently manipulated to have a highly paced situation that is a situation with a lot of things going on at once, or a low paced situation where a player can relax as there may be few things to take into consideration for that moment (Salen & Zimmerman, 2004, p. 403).

2.4 Anticipation

Anticipation is the act of predicting, foreshadowing or expecting something to happen. By evaluating situations one can anticipate a result, which is a frequent occurrence in games as many outcomes are delayed by several factors like for a battle to settle or approaching an unsuspecting enemy. It is of importance that anticipation is not to some extent knowing the exact outcome and can thus end in a different fashion than expected (Wulff, 1996).

2.5 Local fight

A local fight is a part of the playable area designed for the purpose of having player characters clash against each other. These local fights often use objects to allow player characters to hide or change direction in the purpose of confusing eventual enemies (Larsen, 2006, pp. 13-16).
2.6 MDA

MDA stands for mechanics, dynamics and aesthetics. Mechanics are the particular components of a game, a data representation often found as an object or action. Dynamics is the behavior of mechanics affected by players input and other mechanics output. Aesthetics is the sought emotional response from a player after interacting with the games systems (Hunicke, Zubek, & LeBlanc, 2004).

2.7 Downtime

As the use of the word downtime in this paper will be common occurrence because of its relationship with low paced situations it will henceforth be defined as the period of time within a game session where the player will have none or close to no active choices to take. As an example this is the period of time for when a player’s character is dead and removed from play. The player will have to wait for it to respawn, which is for the character to be returned to the playable area and for the player to regain control.

There are plenty of situations of downtime which will be analyzed and it is likely that enthusiasts of the MOBA genre will know that there often exist actions to be taken at these periods but these options are also those which will be analyzed as part of the core of this thesis. Downtime will not refer to out-of-game instances like server maintenance downtime or the period for finding a match.
3 Multiplayer Online Battle Arena

This thesis will study the MOBA genre, most known for games like League of Legends and Defense of the Ancients.

The MOBA genre has grown to become one of the largest competitive multiplayer genres with a considerable time required per session (Tan, 2014) compared to a lot of other competitive games. What inspired this thesis is how it is able to captivate the players for that long duration and this thesis will look for such clues within games mechanics which are affected by pacing.

The MOBA genre or also known as the action real-time Strategy is a real-time team multiplayer game type where players, through coordination and reaction challenges control one character each to compete against each other. Distinguishable features within the genre are the playable characters small set of unique abilities, NPC (Non-Playable Character) which fights for the respective teams and a set of distinctive walk paths.

3.1 A Brief history of MOBA

The first types of MOBA appeared in 1998 with the release of StarCraft (Blizzard Entertainment, 1998) which had a game editing tool that allowed players to alter and design custom maps. Those are so called mods or modifications, a partial conversion of an existing game. This is where “Aeon of Strife”, the predecessor of MOBA was made later to be adopted by the next game; Warcraft 3 (Blizzard Entertainment, 2002) and its own editing tool where the community further developed it into what we now call Dota (Defense of the Ancients). By 2009 an independent MOBA game, not based on other games editors, was created that by now probably has the biggest player base of all MOBAs: League of Legends (Riot Games, 2009).

A year later Heroes of Newerth (S2 Games, 2010) was released as one League of Legends biggest rivals until Dota 2 was announced and quickly grew. As of 2013 Dota 2 is probably second largest MOBA game and with the biggest prize pool ever for a competitive electronic sports game (E-sports_Earnings, EsportsEarnings, 2013), (Mowen, 2012), (Wikipedia, 2014).
3.2 A Rule set for MOBA

This is an explanation of common mechanics used in the MOBA genre.

MOBA games consist of two teams of players contesting to destroy the opposing team’s base first and it most often being a structure. The teams’ bases are placed at the opposite ends of the level (see fig. 1) having defensive structures in between them along predetermined paths.

![Figure 1: One team’s base in the lower left and the other’s in the top right marked as squares from the game League of Legends (Riot Games, 2009).](image)

Each player of a team will control a character with specific properties that states the status of the character. These properties that are analyzed in this thesis are the movement speed, health points and mana points. Movement speed is the numerical value of how fast a character will traverse across the playable area. Health points are the amount that indicates how much damage will be required to slay a character. Similar to health points there exist a property of mana points, which does not yield any specific result if reached zero but is an expendable resource to activate abilities that playable characters can use. All characters do in most of the games from the genre have a constant regeneration of these points but there exists exceptions such as Awesomenauts (dtp Entertainment, 2012) that does not use for example mana points.

In addition to the playable characters to fight for the destruction of bases there is a periodical event that creates Non-Playable Characters for both respective teams that walk along predetermined paths towards the opponents base, combating any enemy on their way.

Each playable character will have a set of abilities that can be either activated or produce an effect passively and constantly as long as the character is alive. These abilities produce effects onto other characters and for example they can deal damage, increase the movement speed or allowing characters to become invisible for enemies.

Along each predetermined path that the NPCs walk there will be placed destructible defensive structures for each team, frequently called towers that will attack any enemy that approaches them.
4 Background and Previous Research

Designing a game will almost inevitably be compared to designing for other entertainment forms such as TV, theatre or literature. While games are by no means the same as other media with the factor of being highly interactive, to try and find similarities could turn out as a boost that would help games develop as there is an opportunity to stand on the shoulders of giants that are the other older media. Designing games with drama in mind is not something unheard of and analysis has been made to see how similar structures have been used for stories in games. For example Rolfe’s & Wallace’s paper Designing Dramatic Play: Story and Game Structure (Rolfe & Wallace, 2010).

Pacing itself has a wide study of its own that are related to games as Negative Space (Shafer, 2013) or Beyond Pacing: Games Aren’t Hollywood (Wesłowski, 2014) that also has a strong link towards dramaturgy on its own.

Subjects that have been studied less would then be the mechanics or systems effects upon these subjects or the relations between them where this thesis then would find its place.
5 Method

Having chosen the MOBA genre, the next step is to find mechanics from respective games.

5.1 Distinguishing mechanics

The chosen method for distinguishing mechanics between the games has been based on Konzack’s research (2002) of computer game criticism of the category of gameplay. This base for a method gives five different sources of mechanics.

Resources: The resources are the components that the player use to interact with the game and can appear as numerical values or objects as in-game currency or playable characters.

Space: For the playable area in which the game takes place, space is where all feedback is shown and components represented.

Obstacles: Obstacles are whatever stands in the way of a player to fulfill possible victory conditions. These can be found as enemies, which can be represented by players or computers.

Knowledge: Knowledge exists as several different forms: hidden, shown or random. Shown knowledge can be presented by statistics, rules or other observable factors in the game, while hidden knowledge can be unseen areas of the playable area or enemy strategies. Random knowledge can be portrayed as a dice roll or any other type of randomization.

Rewards and penalties: These are the dynamics of gaining or losing any of the previous four types.

5.2 Collecting mechanics

To get a quantity of features to look at; the following games have been chosen to be investigated due to reasons explained next to the respective games;

- Defense of the Ancients (Eul, Feak Steave, Icefrog 2003. Mod of Warcraft 3, v.6.80c)
  As Dota is one of the biggest parts that popularized the genre and lead a large number of games to be created with it as a base it has been chosen to be investigated as one of the points of MOBAs origin.

- Awesomenauts (Ronimo Games 2012, dtp Entertainment, v2.3.1)
  Due to being an extreme comparison to the more normal type of 3D top-down camera seen in the MOBA genre, this 2D side view platformer is valuable as a cross reference to identify patterns within the genre.
Other games have also been taken into consideration and will to a lesser degree be used in this thesis, but deemed too similar overall by not having enough distinctive mechanics to be covered at the same extent as the previously mentioned games. Some of those other games will be named since they have provided perspective or support for shared mechanics. Those are the games like League of Legends (Riot Games, 2009), Heroes of the Storm (Blizzard Entertainment, 2014) and Smite (Tencent Holding Ltd, 2014).

The investigation itself will be conducted by observing players interacting with the game and playing the game. Through observing and distinguishing components from the games a list of found mechanics will be presented and analyzed. To help identify mechanics that affect pacing, key words have been used to select relevant. The key words chosen are; downtime, resource and knowledge as in the previously described terms.

Dynamics that arise from the use of mechanics has acquired a place among the results for analysis, as mechanics may at times only set the required stage for the dynamics to show their affect upon pacing.

5.3 Representation of mechanics and dynamics

To give a representational structure for each mechanic of respectively chosen research areas, an order has been set up to easier distinguish results. This is done by having the title as the identifier to associate with the mechanic. In the case of it appearing on images it will have an icon so that it can become easily locatable from possible maps of the playable areas.

With these sources for finding mechanics the results will be presented by three categories that have been titled as “Playable character mechanics”, “Level Design” and “Other dynamics”. The intention by dividing the mechanics into these categories is that they can more easily be presented with other mechanics with similar origin.

5.4 Analysis of mechanics and dynamics

To get an analysis of the relations between pacing and dramaturgy of mechanics, terms as dramatic tension or anticipation have been used as well as uncertainty and inevitability. By using these terms the idea is to see if they become applicable to the mechanics that induce change in pacing, and in what way.
6 Observed mechanics

As the collection of mechanics has been conducted, the following mechanics and dynamics have been assembled and sorted by the terms provided previously. Some mechanics have also been confirmed for the game Dota from the Dota website (Mechanics, 2010).

6.1 Resources

For the resources found within the games, the following two are presented as they affect the pacing constantly through entire sessions.

- Regeneration
  The regeneration mechanic is a positive constant modifier of other mechanics as life or mana points and will reduce dangerous situations that occur when these resources are low.
- Transportation
  Transportation itself is a dynamic of several mechanics as movement speed or instant translocation, which all affect the pacing of the game.
  - Run
    The movement speed is the mechanic that allows characters to traverse the playable area and is related to downtime in the sense of having a player wait for the character to get to the targeted destination.
  - Teleport
    The teleport is a mechanic that gives the player the ability to instantly relocate his character to another position of the playable area removing possible downtime for travels.
  - Dodge
    Dodging is a dynamic that appears from the combined efforts of the mechanics movement speed and area of effect, where a playable character can use the movement speed to avoid standing in an area or to enter it.

6.2 Space

The mechanics that affect the pacing through the means of the playable area are a mixture of what is placed, what is not placed and where they are placed.

- Negative space
  The negative space in a game is an indirect mechanic as it stands for the absence of other mechanics. The space can be portrayed as the path between places of interest, such as goals of where the player would like to arrive at from where he is.
• Pivot point
This point in the playable area is a dynamic based on factoring mechanics as stores, additional regeneration, defensive structures, the team’s base and others. These factors then make the players head to and from this point and because of that will be called the pivot point.

• Connection point
The Connection point is another dynamic based on similar ideas as the pivot point but with fewer factors and among them the winning condition as the pivot point is the only one holding that condition. What this point adds so that it not only is a smaller scale pivot point is based on the positioning of it. It will help players transport their characters from the pivot point onto the rest of the map with additional security and speed.

• Neutral connection point
A neutral connection point adds no new mechanics itself but as a dynamic based on the pivot point. This is only a small scale version with different positioning. The point will provide players with either stores or regeneration.

6.3 Obstacles
As MOBA games are a competitive type between players based on combat, the confrontations are the biggest obstacles to overcome.

• Confrontation
Obstacles in MOBA games are presented through the dynamic of confrontations where a set of mechanics as health points and attack damage are used in the purpose of slaying enemies.
  o Player versus player
  The hardest obstacles are the other players as they are the tipping factor for a team to win when the teams would otherwise be at a standstill.
  o Player versus neutral monster
  Fighting neutral monsters does not directly progress towards the goal of destroying the enemy base, but with a resource bounty it can help boost a character.
  o Player versus opposing army
  Similar to neutral monsters the army units comes with a resource bounty and with the additional advantage of lowering the current enemy army numbers, increasing the potential to advance towards the enemy base.
  o Player versus opposing tower
  A tower is a defensive structure utilizing the same mechanics of other units without the movement speed, but it holds other advantages such as the possibility for playable characters to teleport to them through the use of items.
6.4 Knowledge

As for how mechanics are shown for enemy teams, there are mechanics that specifically affect the knowledge making them hidden.

- Vision modifiers
  Every character of the games Dota, League of legends and Heroes of Newerth all share a mechanic that depicts the area around them of which they are granted vision. Enemies outside of these visible areas will be hidden and that zone is called fog of war.
    - Blocking obstacle
      A blocking obstacle is an object within the playable area that hinders vision of characters.
    - Height difference
      The mechanic of height difference is a numerical modifier to the vision range of characters where lower height impairs vision on higher grounds. A higher positioning can grant vision over some blocking obstacles.
    - Hiding volume
      Hiding volumes are specific zones in the playable area where playable characters become hidden from enemy sight.

6.5 Rewards and penalties

Rewards gained through MOBA games comes as bounties for slaying enemies but this bounty has been disregarded since it has little effect upon the pacing of the games and indirect effect is shown through other parts as confrontations. Penalties however are providing mechanics relevant in that sense.

- Death
  When a character loses all hit points it will become subject to a mechanic portrayed as a time period in which the character is temporarily removed from play, thus entering a downtime.
- Stun
  A mechanic that applies a few seconds long downtime to a character is the stun which removes the control player has over it.
7 Analysis

In this chapter there will be provided descriptions for specific game mechanics with regards to how they affect dramatic tension during play.

7.1 Playable character mechanics

For features to analyze, the ones connected to the playable characters has been chosen as a target area as to tackle at first. That is those that are affected by the mentioned effects as downtime or others to be explained later on as risk and reward, uncertainty and inevitability. The main features in consideration are usually using one or more of these terms for finding their possible effect on dramaturgy.

The main features found and observed for this chapter are:

- Transportation
  - Run
  - Teleport
  - Dodge
- Death
- Stun
- Regeneration

7.1.1 Transportation

As transportation is a frequently used mechanic that a player will make use of constantly within MOBA games. It has come with some distinguishable dynamics that affects the pacing and dramatic tension within the games. Notable effects are of having to wait for ones character to get to the action, to transport back to a base or to return from a base to various positions of the map. A few examples that cause dramatic tension would be a player, which is being hunted by other players. In that scenario there would be pressure of trying to not getting caught and the opposite of trying to catch the hunted. This gives a distinctively different dramatic tension than for a player that simply is heading back to base, entering a downtime for the duration of the travel.
A player behavior that occurs regularly within MOBA is a tug of war since the opposing teams’ bases that are the primary goal to destroy is at the opposite corners (see fig. 2) of the playable map and the conflicts then take place in between. One of the possibly occurring behaviors is when one team pushes the other further onto their respective half of the map, now reinforcements will take that much less transportation time to get onto the battlefield and correspondingly longer for the pushing team. Pressure is now introduced with the so called risk and reward (Adams, 2010, p. 23), which is by trying to balance in this case the possible achievement of what a player can get from his actions versus the possible danger that the player would possibly encounter. By entering further into the enemies’ part of the map a player’s character will become more exposed to potential threats.

![Figure 2: One team’s base in the lower left and the other’s in the top right marked as squares, both controlling half of the map (Blizzard Entertainment, 2002).](image)

Many abilities are designed with transportation in mind as their weak point. Examples of abilities can be those that use an Area of Effect which as in its name describes that it will cause an effect upon an area. These abilities often have an activation time period for the player character that activates it or a transportation time which will give the targeted player characters a possibility of avoiding it by utilizing transportation and moving away from the designated area, dodging the potential danger. Some abilities that player characters can activate uses a similar pattern to avoid the effect of abilities but utilizing different methods of targeting, as a projectile following a trajectory or a homing projectile which dissipates after a set distance traveled. This makes transportation an effective part of player character moves in addition to simply traversing to and from confrontations.
There are other abilities which in turn affect transportation speeds negatively for the target. As for example one ability that determines a previously visited point where the targeted player’s character will teleport back to at the end of a short period of time making escape attempts much harder. There are also simpler mechanics which reduces the targeted enemy’s movement speed setting up for a situation of uncertainty or inevitability of possible outcomes by confrontations.

7.1.2 Death

Death is one of the biggest downtime based pace modifiers within the genre as there will be a respawn time period before the player’s character can enter the playing field again. There will be almost nothing but waiting for them. In games as Dota or Heroes of Newerth there exists a buy-back feature which allows the player to spend in-game currency to terminate the death period. This comes with its own limitations that are either restriction of use by time and/or maximum use charges. A buy-back in its own is an addition to potential dramaturgy as it is can be used in dire situations. A player will then have to balance the cost to revive his character to help his team or to save it for if it would be needed for a more dangerous situation in the future. This feature then uses with the powerful concept of risk and reward (Adams, 2010, p. 23) where a player who is introduced with a risk and has the option to take it for getting a reward or yielding the opportunity for deeming the risk being too severe for the situation.

Avoiding situations which have a probability of causing death will also have an impact on the pacing of the game as the players will have to balance the situations for being worth the risk of endangering the characters life or choose to stand back and take a strong defensive position staying away from any confrontation and will then lower the tempo as there will be fewer decisions to be taken by having less actions to answer.

7.1.3 Stun

A feature which applies downtime for the player and increases the dramatic tension of the moment is the stun effect as it will cause a character to become completely unmoving and non-interactive for a short period of time. With the character stuck the player can almost only wait with anticipation for how to improve the situation after the player will be given back control, unless the character has not already been killed.

There is also dramatic tension of anticipation on the player that will apply the stun as more than often it is a result based on chance that characters ability possess or a purchased item that also relies on chance to stun a targeted enemy. The chance itself is a big addition to the dramatic tension as it is all about risks and rewards from the moment the option presents itself.
Stun can appear in several different forms as well, such as the most basic that the affected enemy loses the ability to interact with his character. There are other forms as where the character is temporarily suspended from play, which leads to a different impact upon the situation with the affected player not having to worry about his character. This does not mean that the dramatic tension is by default low, however, this opportunity of the character being suspended could allow enemies to surround the location and wait for the period to end or having to worry about teammates that are still in danger.

7.1.4 Regeneration

To reduce the amount of times a players’ character will have to retreat for regeneration of its health as a mechanical system (Hill, Tick, Tick, BOOM!! - Catharsis and Pacing in Games: The New Dramaturgy Pt.2, 2013) is very common so that often only a small downtime period is needed for a player character who is hurt. To stay just behind friendly lines so that they can recover instead of jeopardizing their characters life in battle or enduring a long walk back to base. This features’ values has been used in various quantities to produce very intense moments, especially in situations when the regeneration factor is high, but only for a short while. An example of this is being during a battle where a character is at a very low amount of health points and risk dying but has a high regeneration factor. A situation that would use a high pace for the respective player is if the opponent would be able to deal more damage than the regeneration is able to recover, or if the opponent recognizes that it would be more profitable to back off due to insufficient damage output and so that damage inflicted upon him would be reduced.

In many MOBA games the characters hold an additional property to the health points, which are mana points. These mana points are a resource that is spent to activate character abilities but as with health points, it has a constant regeneration. Mana points do however provide a different effect on situations faced, as a character will not die by having spent all the points. They can however produce situations for players where they might have to wait in a similar fashion with health points. Players may want to wait instead of engaging enemies with the intention of being able to activate more abilities later by regenerating than to engage directly with an insufficient amount.
7.2 Level design

A basic element of drama found within level design is anticipation; the anticipation of seeing the opponent but him not seeing you. To wander in the fog of war (partially hidden parts of the map where one cannot see specific things as for example enemies due to not having a vision providing unit nearby as an allied character or an allied structure) not knowing if prowling enemies whom wait nearby, simply the fear of the unknown is a great contribution for games in its own right (Wulff, 1996, p. 1).

To categorize notable key points in level design, special icons has been chosen for the points to show their relations, as well as color coded to ease readability. The opposing teams have been colored in white and red while the purple will stand for any neutral part and each will be explained further at their respective part (see fig. 3).

The features names have been assigned as identifiers for this thesis, to help to associate it with the following points of interest;

- Pivot point
- Connection point
- Neutral connection point
- Vision modifier

The chosen points will be marked on upcoming maps with simple and recognizable figures to make them distinguishable. The figures will be as follows; a square for the Pivot points, circle for Connection points, triangles for Neutral connection points. The Vision modifier spots will not be marked due to the vast quantity that would clog the readability.

Fig 3: The map of Dota with the respective points marked locations (Blizzard Entertainment, 2002).
7.2.1 Pivot point

The Allied pivot point for this thesis has been chosen to be called as such and stands for a specific point in the map where each respective team will have to pivot around; this spot is generally the “base” for the team where a few main features are located. For example, stores for buying character improvement items, regeneration of health and other stats of the character as well as respawn after being killed. This point is also often close to the base the enemy will have to destroy to win the game.

This base is place of security as any enemy will be heavily damaged upon getting close, and it is surrounded by other defensive structures. This leads to that a returning player character or a newly revived player character will be almost free from potential dangers, leading to a low pace unless the case that the player has used the revive buy-back feature to quickly get back to any fight. As the player is within the base his character also gains a steady regeneration, which is a cause for damaged characters to return so that they may recover, instead of having their character killed. This point then stands as a relaxing part of the map with most types of advantages available for a team.

7.2.2 Connection point

The Connection point is a valuable spot where the players receive special advantages. They will allow players to venture out onto the map without excessive danger. In many cases these will contain the structures with offensive capabilities, frequently called towers among a set of other names. These towers would then allow so that a player might protect himself from enemies by approaching close to any friendly connection point.

As both teams will start with a predefined amount of towers in the game of MOBA, they will create more confined areas for the early stages of the game since they are relatively dangerous to an enemy player. This reduces the complexity of player movements but in turn adds contrast in the dramatic tension as the towers are destructible and the player characters will achieve the strength to destroy them leading to the map becoming more available for players to ambush or open up alternative escape paths.
The towers also allow for early stage local fights (see fig. 4), which are almost the only places where early confrontation appears. Those places are one of the most beneficial income sources for in-game currency with the killable NPC units that gives bounty and walks along the tower roads (Larsen, 2006, pp. 13-16).

Towers provide another big advantage through the possibility of teleportation instead of the alternative of walking. In Dota there are items that allow a player character to relocate to any friendly structure. These connection points allow players to quickly enter the battle again in the early stages if they die or are forced to retreat etc. This introduces a possible situation for a player who would need to catch up to other players who choose to venture far into the enemy territory with few allied remaining towers. If the player’s character were to die, the travel time would otherwise increase drastically, leading to a longer waiting period for other allied players’ reinforcements.

The game Heroes of the Storm try to achieve a shorter and more intense game session by having a specific difference to other MOBAs as Dota, League of Legends or Awesomenauts. They have taken a part of what is more common of the Pivot point, the regeneration, and with a reduced effectiveness placed a structure to heal friendly player characters at each of the maps Connection points (see fig. 5).
7.2.3 Neutral connection point

The neutral connection point can be interpreted as an addition to the other points for balance purposes, as it reduces the downtime for players by walking back and forth between the bases and with further opportunities explained later on. In the case of Dota, they are stores that supply useful items even if only in a smaller assortment and they can provide a small refuge for characters or a closer stop than the base for items. This point comes with its own set of risks and rewards instead of the complete security of the Pivot point as these more than often are surrounded by sight blocking environment. This leads to giving players a temporarily secluded period of time if they wish to purchase things without being targeted, and as such a low tempo. It can also be used in the complete reverse as it can be a dramatic tension builder for an ambush.

The neutral connection point is also the only point that is relatively different in comparison to a map from the game Awesomenauts. In Awesomenauts there is no store, but another advantage instead with the other points remaining almost the same. In Awesomenauts the neutral killable NPCs that spawns periodically at the point gives back a set amount of health for a playable character when killed (see fig. 6).

Fig 6: One map from the Awesomenauts game with very similar points (dtp Entertainment, 2012).
7.2.4 Vision Modifier

In levels of all mentioned games there are components that will modify the sight of the player, and in usually a reductive manner. These are most common obstacles within levels:

- Height difference
- Hiding volume
- Blocking obstacle

7.2.4.1 Height difference

The height difference effect occurs in a couple of games such as Dota, League of Legends and Heroes of Newerth. By having predetermined numerical levels of the ground height the vision will be reduced so that a player’s vision will not be granted on higher levels and in the cases of having one’s character on top of a higher level of ground, vision will be granted to see over sight blocking obstacles. This will provide ample situations of seeing enemies that cannot see you, or on the reverse, to be afraid for something waiting for you on higher ground.

7.2.4.2 Hiding volume

A hiding volume is a zone where a character will be hidden from enemy sight with some conditions like not having an enemy sharing the zone (see fig. 7). These volumes are often used in the games League of Legends as bushes or Awesomenauts in variable forms and are suitable as hiding spots or for ambush purposes.

Fig 7: A hiding volume depicted by the yellow outline that marks the boundaries (dtp Entertainment, 2012).
7.2.4.3 Blocking obstacle

Blocking obstacles occur in high amounts in various MOBAs such as Dota, League of Legends and Heroes of Newerth in the most common form of trees. How these obstacles work is to hinder the line of sight from the origin of characters. An example can be shown by the following image where the vision of the player is clearly divided between a lighter and a darker shade indicating where vision is granted with a nearby obstacle, see fig. 8.

Fig 8: A tree is located directly above the character effectively dividing the granted vision (Valve Corporation, 2013).

This property of the obstacles provides a variety of uses for players as where one can feint the opponent by changing travel directions once they are outside the line of sight. They can also be used to prepare for confrontations by activating an ability that requires a set activation time and the opponent would like to use to avoid the activated abilities effect rather than noticing it too late by not having the vision at the time.
7.3 Other dynamics

7.3.1 Confrontation

The closest dynamic to the pinnacle of climaxes and dramatic tension would most likely be the confrontations, the battles that the players encounter. These encounters vary greatly in how big of a probability that the players’ character life is endangered with as the difficulty of the opponents are vastly different. As there are a multitude of encounter types they will be explained one by one as following:

- Player versus player
- Player versus neutral monster
- Player versus opposing army
- Player versus opposing tower

7.3.1.1 Player versus neutral monster

In the case of a battle between one or more players versus neutral monsters, this confrontation is by far the easiest due to a couple of reasons; the opponents will not be given any sight from the monsters as they are neutral contrary to the teams armies that yield vision and thus reveals the location of the player. It is also relatively easy to escape as neutral monsters have a predetermined and limited distance that they are allowed to run from their original location in the case of chasing someone. These factors are why the gamble is quite in the favor of the player when it comes to combat. What does however put the battling player in a possibly bad situation is for if other enemy players are prowling nearby and utilizing that the one battling the monsters will take damage by the conflict and then be weakened for potential ambushes.

7.3.1.2 Player versus opposing army

This encounter for a player with the opposing army is one that yields relatively low risk of danger itself. Both teams are generally given a balanced amount to clash allowing the players to tip the balance of which side will be pushing the other. These are however important as they are the key to penetrating the opponent’s base, so that the winning condition of destroying the key opponent building will become available. The hardship these battles provide is though that the armies grant vision to all allied players, which means that if a player wants to take on the engagement, their position will be revealed and the option to the opposing teams’ players now lies open to go there for the purpose of attacking the player in question.
7.3.1.3 Player versus opposing tower

To attack the opposing teams towers, that is most likely the Connection points, is similar to the encounter with armies in the regard of granting the enemies vision over the conflict. This struggle is however a bigger hurdle than normal army units as the tower itself is durable and provides firepower resulting in that the attacking players usually will need some preparations to engage it. As if that was not enough to toughen the situation, the option still remains for enemy players to utilize methods of teleportation that in many MOBA games allows players to instantly relocate to friendly buildings. All this makes the battle a daunting task against the time as enemy players could appear quickly and constant army support that often will require multiple player characters and/or several attempts.

7.3.1.4 Player versus player

The confrontations between players are the most difficult of all in some regards. They give advantages as the previous encounters such as vision or strength. What makes these encounters special is the unpredictability of a player that does not move by a specific pattern. This can lead to the most unfavorable battles with the examples as outnumbering the opponent, ambushes or engaging an already weakened target. Obviously the players can choose to hunt you for an unspecified amount time or length and as the game progresses the players easily becomes the strongest game pieces on the board making them the number one priority of knowing their presence.

In the later parts of the game it will likely all come down to suppressing other players by finding the situations where they are weak to pick them of so that the focus can be turned to advance closer to the essential enemies base building for winning the game. Worry is easy to inflict on players here as it all revolves around understanding when one is in a weak or dangerous position or when one is in a strong position and take advantage of it which is a hard task since the game has a lot of factors making the decision an estimation rather than a calculation with a definite answer.

7.3.2 Negative Space

An important aspect is also found in between specific locations, that is to say the negative space or downtime that does by no means have to be a fixed spot. An example of this would be the lack of actions a player would need or have a choice to take as a character running there might not be a need for conflict or any character affecting choices that would mean then in turn that the player would have a moment to relax (Shafer, 2013).
8 Conclusions

The purpose of this thesis was to identify examples that affected the dramaturgy through the changes of pace delivered by the pacing of features. With the basis of the drama in conflict a few conclusions can be derived from the chosen features.

Based on collected data, there is a distinguishable link between the pace and drama in how convincing the respective factors are able to tell the outcome of variable situations for the player in determining the potential dramatic tension a player will become subject to. As more factors are introduced per set amount of time, by previously stated mechanics and dynamics, the potential of a deterministic calculation becomes understandably more difficult that induces uncertainty by having the players take action before they have reached an elaborate answer. This would then show that pacing does affect the drama and through utilizing both higher and lower pacing we can get different dramatic situations.
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