A PROPOSED MODEL OF CHARACTER PROGRESSION TAXONOMY IN MASSIVELY MULTIPLAYER ONLINE ROLE-PLAYING GAMES (MMORPG'S)

A Thesis

by

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ABSTRACT

A novel taxonomy for character progression in Massively Multiplayer Online Role-Playing Games (MMORPG's) was developed into three main functions: the identification, classification, and nomenclature of character progression types. A conceptual framework was established assessing two existing character progression types, linear character progression and nonstatistic character progression, using the grounded theory research method approach. The framework was then used as a form of reference in order to develop the classification and nomenclature of character progression types. These results are a foundation to determine whether a novel, hybrid approach to character progression could increase the level of player investment in gameplay based on the taxonomy of character progression types. Ultimately, this taxonomy can serve designers' critical thinking process, enabling them to better accommodate their specific audience of players, potentially reducing player churn rate.

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1. INTRODUCTION

The world of academia takes greats strides to further the research and development of the visualization fields. However, scholars seem to have ignored the craftsmanship of video game design for the better part of the gaming industry's initial conception. Now for the first time, the field has learned to walk, and academics are showing serious interest in video game design development within the industry. Emerging technologies in the field of game development have opened the doors to forms of gaming that 40 years ago seemed to only be a dream. Designers now have the ability to not only create works of art, but test and study players' behaviors. Yet, this research is still new; where many theories and ideas have not been tied to distinct, easy to find facts. Other fields such as filmmaking have established rules and guidelines that filmmakers expert and rookie alike can refer back to (i.e. camera shot types). In some cases, general guidelines do exist (see examples: Bond, 2014, *Introduction to Game Design*, or Schell, 2014, *The Art of Game Design: A Book of Lenses*). It is time however, for game design to follow in the footsteps of these other mediums by gathering corroborated research and solidifying the theories into practical industry use.

With a focus on character progression, this paper provides a concrete definition of what character progression is in relation to Massively Multiplayer Online Role-Playing Games (MMORPGs), as well as a taxonomy of character progression types. Game designers should be able to categorize their own ideas into these definitions allowing them to better accommodate their specific target audience.

1.1 Ludology vs Narratology in Game Design

There is an ongoing debate within the scholarly community between two opposing groups: narratologists and ludologists. Narratologists believe in the ideology of narratology, which is "the notion that everything is a story, and that storytelling is our primary, perhaps only, mode of understanding, our cognitive perspective on the world" (Aarseth, 2004). A ludologist on the other hand supports the idea that narratological concepts cannot be used to describe games. Though perhaps dubious, this debate remains an influential topic within the field of game studies, which many scholars in the field have mistakenly created assertions from research on out of date and isolated groups of data. Indeed many of these papers lead to misunderstandings that neither help nor move academic research in the field forward (Frasca, 2003, November). This thesis adopts positions with scholars such as Celia Pearce (2005) suggesting that viewing narrative and games as polar opposites is of little good. Scholars should not be segregated into one group or the other, but rather, should pass their ideas through both points of view between play and narrative.

1.2 Introduction to Terminology

Over the past two decades the world has seen many evolutions of role-playing in the form of games. Traditionally, players are assuming the role of a fictional character

and are taking responsibility for acting out these roles in a fictional world. At the dawn of video games, role-playing took on a new turn in these virtual environments in a genre called Role-Playing Games (Reed et al., 2011). For the purposes of this study, role-playing games are defined as a game where a player controls a character in a fictional universe and interacts with the game through their role. Role-playing games are not exclusive to single player games, but can exist in multiplayer games as well. The ever popular massively multiplayer online games are an evolution of multiplayer games. In this research, massively multiplayer online games (MMO) are defined as games that are capable of supporting hundreds to thousands of players in a persistent online virtual world (Yahyavi & Kemme, 2013). Unlike a regular multiplayer game, such as Riot Games' *League of Legends* or EA DICE's and Criterion Games' *Star Wars Battlefront*, MMO's are distinct because more people can play in the same shared environment at once. Hence, a massively multiplayer online role-playing game (MMORPG) is defined as a game that shares both characteristics of the defined role-playing game (RPG) and massively multiplayer online game.

The addition of role-playing and allowing players to develop characters of their own creation separates MMORPG's from other games in the MMO genre. Part of the art of MMORPG's is allowing every player to feel like they have a unique player character avatar living in a persistent world. The player character is a direct link between the player and the game where the design choices and writing choices must go hand-in-hand (Sheldon, 2014). For just as the player character in an MMORPG has a function in the

game, he is also the protagonist in the game's story (Sheldon, 2014). The way the player character experiences the game's story is through the virtual world's gameplay.

Ernest Adams (2014), the founder of the International Game Developers Association (IGDA), defines gameplay in his book Fundamentals of Game Design as "consisting of challenges and actions that a game offers: challenges for the player to overcome and actions to let her overcome them" (p. 313). How the gameplay unfolds to the players over the course of the game is called progression (Rogers, 2014).

1.3 Literature Review: Approaches to Character Progression

Cognitive scientists and gamers alike have theorized and researched over the last two decades what exactly progression means to the player character and how it can be characterized. The approaches to identify what progression is in MMORPG's has ranged from analyzing existing MMORPG's to investigating what specifically motivates the players to play as their character in the first place. Overall, however, this research has led to many inconclusive definitions.

One of the first approaches to this type of research came from those that studied what specifically motivated the gamers to play as their character in the first place. Richard Bartle (1996) researched the link between the player and Multi-User Dungeon (MUD) games by examining the players' motivation to play online on the basis of qualitative interviews. In his research, Bartle formulated a nomenclature with four different types of players: Achievers (players who give themselves game-related goals and earnestly set out to achieve them), Explorers (players who try to find out as much as

they can about the game's virtual world), Socializers (players who use the game's communication facilities to otherwise converse or interact with other players), and Killers (players who are interested in doing things to others only to demonstrate their superiority over fellow humans). While this classification became well known, Bartle never empirically tested the underlying assumptions of the model. Researchers at this time were designing for character progression, but may not have known that they were doing it.

Ten years later, Nick Yee (2006a, 2006b) furthered Bartle's research by conducting the first empirical studies aimed at identifying the various motivations of players in online role-playing games. Yee (2006b) conducted an online survey of 3000 MMORPG players and identified three broad types of motivations: motivations related to achievement, to social activity, and to immersion in a virtual world. Each was subdivided into specific subcomponents (e.g. the achievement component comprises distinct types of motives such as the desire of advancement through the accumulation of in-game symbols of wealth or status). In order to strengthen the validity of the premised motivations for playing online, a second necessary step was still needed to test whether these motivations effectively predicted the way people behaved in virtual worlds (i.e. the actions players take such as exploring, roleplaying, competing with other players, getting involved in guilds, or choosing a type of progression).

In 2012, researchers made one of the first attempts to test Yee's model concerning motives to play online (Yee, 2006b; Billieux et al., 2012). They conducted their research by contrasting Yee's and Bartels model through the use of confirmatory

factor analysis techniques investigating the relationships between self-reported motivations to play MMORPG's and real in-game behaviors in persons involved in Blizzard Entertainment's MMORPG *World of Warcraft* (WoW) (Blizzard Entertainment, 2017; Billieux et al., 2012). In their paper analyzing WoW, the concept of progression within the games design was considered a central feature implying that a player's character will acquire new skills and powers as rewards for succeeding in missions or quests (Billieux et al., 2012). This progression can be tracked through a series of achievements and 'talent trees' (the visual method WoW uses to help players keep track of their unlocked skills and abilities) within the game. The research group decided to focus on the type of achievements favored on the Armory website of the French community of WoW (Blizzard Entertainment, 2018). In the Armory at the time, there were eight achievement categories: general, quests, exploration, player versus player, dungeon and raid, profession, reputation and world events (currently there are seven additional achievements within the Armory). The score of these eight achievements can be considered a very proficient ecological measure of both the engagement of the players and their playing preferences.

The conclusion from their correlation analyses relevant to player investment through character progression design can be summarized in their data regarding self-reported involvement in the game. First, the number of hours devoted to WoW each day appeared to be strongly related to a motive for advancement, as well as to mechanics, competition, relationships, customization and escapism. Next, the mechanics motive was related only to the number of years since the participants played last. In addition, several

associations took place between the self-reported motivation to play online and the negative outcomes resulting from gaming. Specifically, advancement and escapism motives were primarily impacted by addictive usage patterns (i.e. players whose behavior shows signs of addictive patterns such as unsuccessful attempts to quit and desire without pleasure). These results of the study confirmed specific associations between the player's motives and their in-game behaviors. An overall analysis of the paper also revealed that players generally progressed through the game faster when they were motivated by teamwork and competitive oriented motives (Billieux et al., 2012).

In comparison to others, some researchers approached the topic of character progression in video games through game theory and principles. In 2002, Jesper Juul published a paper examining ways video games present players a challenge and its application to the MMORPG *EverQuest*. Juul surmised there are two types of games: games of emergence and games of progression. Emergence games have strategy guides, rules of thumb and general tricks, while games of progression are characterized by serially introduced challenges. Regarding progression structures, Juul claims the player is afforded some freedom to roam an environment where players perform a predefined set of actions with the only interesting experiences to engage in are in one direction. While MMORPG's, such as *EverQuest*, are games of emergence as well as games of progression, they are characterized by the fact that they can be completed and that replayability (i.e. willingness to play again) is subsequently very low. Since the designer controls the sequence of events, the player simply advances through the correct tasks that have already been decided for them (Juul, 2002).

Theories and research concerning MMORPGs and how characters progress through them have not been completely exclusive to the academic community. There are in fact many independent gamers that aim to create a source of critical thinking about the game industry and video game design through blogs and websites. One example of an independent gamer that wrote about progression in video games is Josh Bycer (2013, May 13), who wrote a post on the video game weblog *Gamasutra*.

Bycer (2013, May 13) took another attempt at defining what progression is and how it works in game design. According to him, the definition of progression has several ways to define it, but concludes that the basic definition of progression is the path from beginning to end the player takes. He then suggests progression in video games can be divided into two different categories: player and game. Where player progression is vaguely defined by how the player learns the rules and mechanics of the game while developing their skills. In this case, Bycer suggests games can be based entirely on player progression (i.e. along with games that test players ability to improve their understanding of the games mechanics or fail trying) or based completely on the games gameplay to progress further (i.e. success or failure is dictated by attributes and chance). Bycer pushed this idea further and defined two types of progression: multi-system progression and meta-game progression. Multi-system progression is defined as a game featuring multiple systems, each with their own unique mechanics and designed to work as one complete experience. Meta-game progression is defined as a game featuring a main game system, and a secondary one that adds permanence between play sessions. Although these are two unique types of progression, Bycer does not clarify the origins of

terms used to describe the makeup of the definitions (i.e. lack of clearly stating what he means by permanence). Thus, the definitions need more clarity. There are of course many other freelance gamers and designer critiques who have reasoned similar issues, such as Ed Park (known by his standard profile username Taugrim).

Park (2012, April 19) reasons that the current direction of character progression design in the vast majority of MMORPGs have a lot of inherent limitations. Park describes a concept called vertical scaling as the source of these limitations. Vertical scaling is a progression design concept where players level a character up to max level, then grind out tiers of gear in player versus environment (PvE) modes or player versus player (PvP) modes. Grinding, in the case of vertical scaling, is what can possibly be the primary source for what Park believes as the cause for many of a vertical scaling designs limitations. Dr. Jonas Linderoth (2012), most known for his work about game perception from an ecological perspective, describes grinding as not a challenge as there is no question as to whether or not a player will succeed as there is very little skill involved. This creates boredom, potentially leading the players to become unhappy with the games current state and ultimately quit (which increases the player churn rate) (Ding, Gao, & Chen, 2015). Park (2012, April 19) then suggests that the solution to this issue is a concept known as horizontal scaling: a progression type where new characters have a baseline set of necessary tools and progressing your character is about broadening your capabilities instead of centering on gear acquisition. A game designed with a true horizontal scaling design in mind however, potentially leaves players with only self-motivation to drive their characters progression forward.

These concepts and ideas correlate with two new potential types of character progression that can likely serve as a base to define other types of progression: linear character progression and nonstatistical character progression (see section 5.2 Nomenclature).

1.4 Identification of Character Progression

Character progression in video games is a topic of great discussion that many users through multimedia understand at a glance, but often-times the core concept of what it means for the character to progress through a game is misrepresented or even perpetually misconstrued. The concept of character progression is more commonly connected within a noninteractive narrative standpoint (e.g. books, films, and story through word of mouth), in which character progression is the combination of character growth and character development. Character growth is a term used to describe the changes to the character as he or she progresses through the story (Sheldon, 2014). Character development, as Scottish writer and theatre critic William Archer (1912) would put it, is not about change, but rather unveiling disclosure of the character in reaction to a series of crucial experiences. Within the context of narratives, characters can progress linearly or nonlinearly. Linear narratives are a method where the character progresses from one part of the story to another in a single series of steps (Westhuizen, 2018). Nonlinear narratives are a method of storytelling where “the author has chosen to

jump around in time, where the order in which events are portrayed does not correspond to the order in which things happen" (Westhuizen, 2018). Linear narratives are by far the most common narrative progression method, because it is far easier to control what the character does and when an action is completed.

This understanding of how character progression within the context of common noninteractive narratives (e.g. books and films), character progression within interactive narratives (e.g. choice based text games and tabletop games) is explained as follows. Character growth could be regarded as the changes in power due to failure or completion of a quest within the story. Character development can be understood as the addition of skills and abilities that are unlocked as the character progresses through the game. Characters within interactive narratives progress just as a character within a noninteractive narrative, except the user or player has more power to control the means and pacing of progression. Linear character progression is defined as a character progression type where players progress in a game by starting at the bottom of a linear path of advancement and move up to unlock more content for their character. Complications arise for nonlinear narratives, however. For video games, nonlinear character progression can be defined as a character progression method where the designer has chosen to progress the players character in no particular order. Advancement of the character does not correspond to the order in which things happen

or are unlocked. The bridge between noninteractive and interactive narratives blends together from its shared language. This begs the question of what specifically does character progression mean within the realm of interaction one will find from a video game standpoint.

When regarding character progression within video games, the meaning of character growth and character development has additional factors that must be considered. There is a distinction between the player, the character, and the way both terms are represented within its virtual world's gameplay; each of which must be understood by a game designer in order to make a good experience for their audience. Given what character progression means from other contexts, it is reasonable to state that their meanings can help construct the definition for what character progression is in respect to game design. This paper proposes that character progression, in regards to video games, is the advancement method of changes that influence the character through gameplay.

2. METHODOLOGY

A systematic meta-synthesis can help construct conceptual frameworks for theoretical approaches to establish new perspectives on empirical studies and ethnographic literature relevant to character progression in MMORPGs (Given, 2008). More specifically, "meta-syntheses of qualitative research are not meant to 'sum' all available data; rather, meta-syntheses present new perspectives on topics through interpreting findings from different qualitative studies to create 'third-level' findings for the advancement of both knowledge and theory" (as cited in Nye, Melendez-Torres, & Bonell, 2016, p. 60).

Through analysis of identified empirical studies and ethnographic texts, existing definitions of terms with unexplained or unclear definitions were clarified to create a comprehensive theoretical taxonomy: identification, nomenclature, and classification hierarchy of character progression types. Data was found from mediums through the internet using search engines such as Google Scholar, and literary texts found within Texas A&M's libraries and associated resources. In order to select the proper studies for assessment, four distinct stages of investigation using these databases were adopted.

In the first stage, to find relevant data, several keywords were identified after an initial literature review on the studies of game design, character progression, taxonomies and Massively Multiplayer Online Role-Playing Games. The primary keywords included: Taxonomy, Nomenclature, Classification, Identification, Game Design, Character Progression, Video Games, Narrative, Massively Multiplayer Online Role-Playing Games, MMORPG's, Reward, Power, Competition, Wealth, Discovery,

Motivation, Virtual Worlds, and Play. In the second stage, all hits were subjected to a selection process through title analyses screenings and studies were collectively excluded that focused primarily on the effects video games concerning violence, addiction, marketing, aesthetics, gender studies, race studies, and age studies. In the third stage, the remaining data sets were examined for academic value and nonbiased discussions or assumptions. Lastly, in the fourth stage, a total of eighty-one literary sources were gathered and a sample size of thirty-nine sources were assessed as having primary relevance to the keywords as listed above.

2.1 Data Analysis

Iterative strategies were used to analyze the thirty-nine sources by using the grounded theory approach to discover themes and label variables (e.g. categories, concepts, etc.) and their interrelationships through manual qualitative coding (Glaser & Strauss, 1999; Charmaz, 2014). Five archetypes (code themes) were developed based on the evaluation of prominent concepts in the dataset pertaining to MMORPGs and character progression types: Concept, Behavior, Process, Factor, and Sensation.

Using the motivations for online play identified by Bartle (1996), Yee (2006), and Billieux et al. (2012), (see section 1.3 Review: Approaches to Character Progression), a conceptual framework was developed to create a taxonomy of character progression types. The conceptual framework utilized the key motivations related to advancement for playing MMORPG's by incorporating the five Archetypes.

3. CONCEPTUAL FRAMEWORK

The Conceptual Framework was created as a means to organize archetypes in both a textual and visual manner in order to help create the taxonomy of character progression types and reinforce its importance with reported player behavior (see Figure 1).

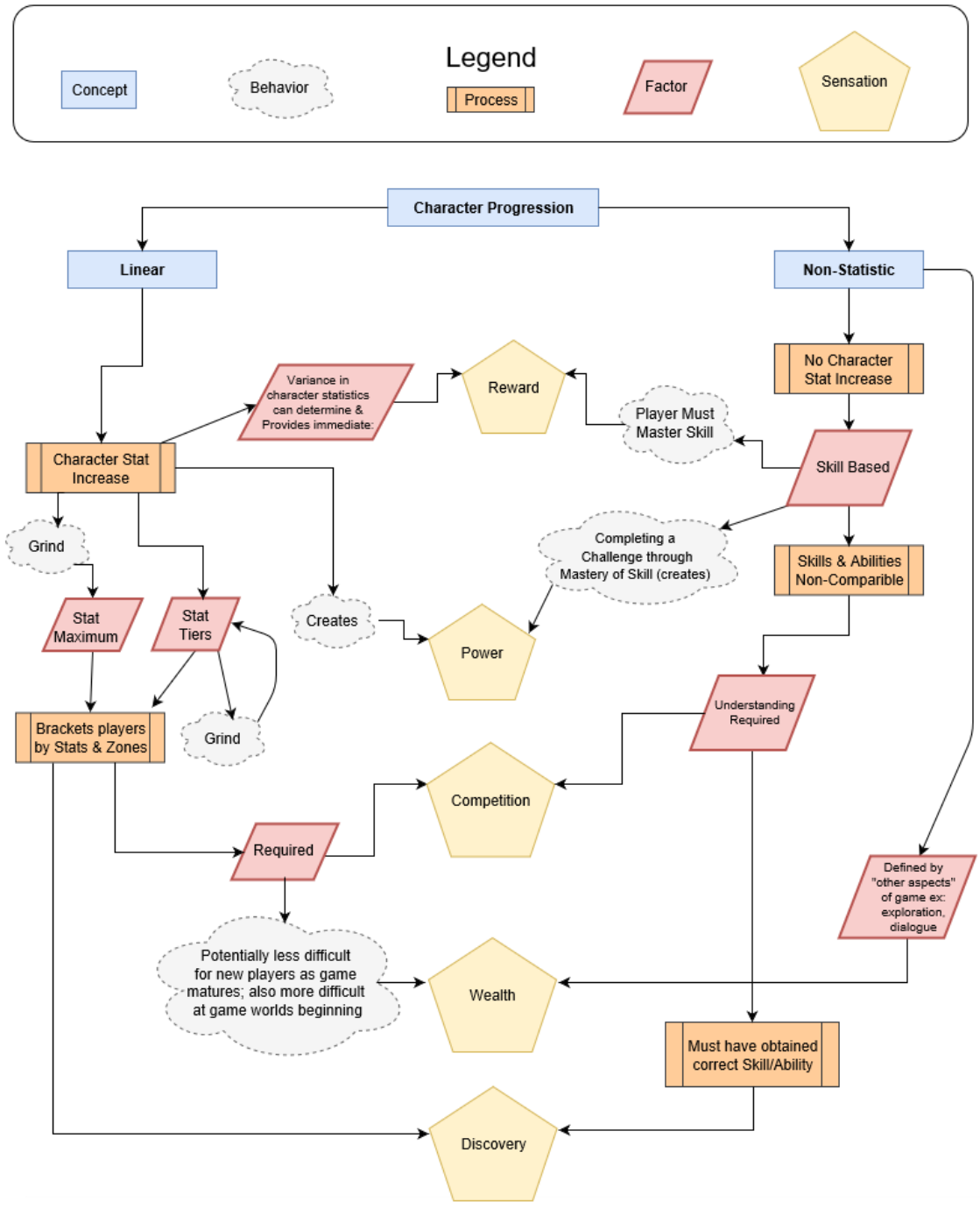

Figure 1. Conceptual Framework

3.1 Archetypes

The conceptual framework illustrates five key archetypes: Concept, Behavior, Process, Factor, and Sensation. Each of these were used in tandem to make sense of the collected research.

"Concept" refers to a core concept or idea. The top of the graph begins with the concept "Character Progression", which is broken down into two key concepts "Linear Character Progression" and "Nonlinear Character Progression". Shortly after creating this chart, the term "Nonlinear Character Progression" used in this chart was changed to "Nonstatistic Character Progression" as this new term fit more properly with the flow of the diagram. This is because a more careful analysis of the data set proved that the factors, processes, and sensations that were studied as a result of a concept more accurately described the character progression type now known as Nonstatistic Character Progression (see section 5.2 Nomenclature). It is important to define that a statistic in role-playing games is a piece of data that represents a particular aspect of the characters avatar that is normally represented as a numerical value in either a unitless number, or a real-world unit such as units of measurement in constitution or velocity (Chowdhary & Brunet, 2013).

"Behavior" refers to the observed player behavior documented from the play of video games, and in some ways, out of virtual world environments. Behaviors are described as a reaction to certain factors and processes due to a games design.

"Process" refers to the operations that make up the "Concept" as if no other processes were influencing the core concept. In this instance, there are four "Processes":

1. “Character Stat Increase”: the process within gameplay where the player characters statistics increase at some point through progression.
2. “No Character Stat Increase”: the process within gameplay where the player characters statistics do not increase at some point through progression.
3. “Brackets players by Stats & Zones”: the process within gameplay where the player character is placed in areas of the game with content sharing similar statistics.
4. “Must have obtained correct Skill/Ability”: the process within gameplay where the player has obtained the correct skill or ability through progression.

“Factor” refers to the specific circumstances within the games design that influence certain behaviors or sensations.

“Sensation” refers to the emotional sensations players feel when playing games. The sensations were derived from the research by Bartle (1996), Yee (2006), and Billieux et al. (2012). Sensations within the Conceptual Framework could be thought of as a result due to a factor or behavior of players within the virtual world’s gameplay. The following five sensations were developed as components of advancement.

4. SENSATIONS: COMPONENTS OF ADVANCEMENT

Using Bartle's (1996), Yee's (2006), and Billieux et al. (2012) research on player motivations, five major sensations were identified as key components that the concept of character progression in video games is designed from. These sensations are: Reward, Power, Competition, Wealth, and Discovery. The cause and effects of each sensation and related points are discussed in the points below:

4.1 Reward

Rewards are a sensation gamers can easily recognize. For the purposes of this paper, there are two types of rewards: natural and artificial (Despain, 2013). Natural rewards include the dopamine response a player gets from learning new behaviors and overcoming challenges that a game may present. Artificial rewards include loot, or items that are found and other "material" rewards that games provide, including leveling, medals, achievements, etc. Within games, these reward systems are created using operant conditioning.

B.F. Skinner (1938), referred to as the father of Operant Conditioning, viewed human motivation as part of a system of reinforcement, extinction, and punishment. A reinforcer is a reward that one gets for desirable behavior, which increases the probability of a behavior being repeated. A punishment is an operant condition designed to decrease the likelihood of a specific behavior. Extinction is an operant condition that occurs when a behavior is ignored, neither rewarded or punished, and eventually stops on its own. One of the ways Skinner tested his Behaviorist theories was by putting a rat

in a cage and measuring and observing the efficacy of the rats actions when rewarded with food pellets for different kinds of actions (Skinner & Ferster, 2015).

Skinner exercised the following:

- Grant a rat a food pellet every time it presses a lever.
- Grant a rat a food pellet every *X* times it presses a lever.
- Grant a rat a food pellet the first time it presses a lever after *N* minutes.
- Grant a rat a food pellet after a random *X*th press of the lever.
- Grant a rat a food pellet the first time it presses a lever after a random *N*th minute.

The results of these experiments concluded that rats would clearly respond to different types of reward cycles. Some of the reward/reinforcement cycles caused the rats to feverishly press the lever again and again in the hopes of getting more pellets. Others were more abated, causing the rats to press the lever fewer times.

If the purpose is to get the rat to press the lever as often as possible, the best reward schedule is what is called a *variable ratio.* This is when the reinforcement is based on how often the rat presses the bar, but the rat can never be certain exactly how many presses it will take since it is based on a random variable. Role-playing games show people tend share a similar behavior to these rats. If the player "kills" a specific type of monster, sometimes a special item drops out. But the player doesn't really know which of the monsters will provide the drop (a *variable reward*). Players don't know when they are going to win, but they reason that the more monsters they kill, the better their odds, so they go on a monster pogrom.

Game designers often like to arrange goals within a game in certain ways to increase the likelihood that the player will return. Dr. Orzack, a prominent American psychologist, identifies the process of character progression and the in-game reward system as one aspect of operant conditioning:

> At first, most games hand out these first rewards like giving out cookies and candy. It's a lot of sweets and pretty good. In the game, every action performed, any little thing that you do, gives you one of these rewards: kill a bunny, get a sword, developing skills, powers, various attributes. These are the rewards that the brain likes. The part of your brain that thinks about the world probably understands that destroying creatures may not be a foundational life experience. Another part says, "ah, gold. Gold good." These reinforces encourage a person to keep playing. Kill enough bunnies and you can afford a better weapon and new piece of armor, meaning you become immediately more powerful, can kill more stuff, go more places, see new things, meet new people, complete more quests, all of which open the door to more reinforcement (Clark & Scott, 2009, pg. 84-89).

"*The Mangle of Play*," in which the one-to-one relationship "time = reward," characteristic of so many MMOG designs, is problematized (Steinkuehler, 2006). In a nutshell, the issue under consideration is whether there might be viable alternative metrics for success within game spaces that might foster more varied and creative forms of play.

4.2 Power

Power can make people happy. If an individual is in a position of power, then it enables that person to live a life on his or her own terms (Kifer, Heller, Perunovic & Galinsky, 2013). That authenticity creates a general sense of well-being. Simply put, one might say so long as the game gives the player a sense of power, then the player will always be happy. Studies show however, that common game design principles such as a feedback loop prove this statement is not always true.

A feedback loop is a term borrowed from other fields such as control systems and biology that occurs when outputs of a system are routed back as inputs as part of a chain of cause-and-effect that forms a circuit or loop (Ford, 2010). There are two kinds of feedback loops: positive feedback loops and negative feedback loops. In a positive feedback loop within the world of gaming, achieving a goal is rewarded, a reinforcing relationship, which makes it easier to continue achieving goals. For example, in a RPG, killing monsters gives the player level-ups, which allow them to kill more monsters. A negative feedback loop, on the other hand, makes achieving a goal more difficult. In an MMORPG for example, players compete to destroy monster dens which lead them with fewer options and greater chances that someone else will destroy the monster dens before another player.

Players generally only seek rewards, or power that will help them complete their objective. To this extent, positive feedback loops become very prevalent. The challenge with designing positive feedback loops is that they can lead a game to a state out of balance, where only the first player to succeed will be able to succeed in the future. This

plays into the “the rich get richer and the poor get poorer" aphorism, which could easily become part of the core gameplay loop. Although players want to be more powerful, it appears that what they really want is interesting and challenging gameplay and mechanics (Despain, 2013).

4.3 Competition

Competition increases engagement. In 2004, Nicole Lazzaro created a design tool to inspire designers to develop new ideas for mechanics called “Four Keys to Fun.” One of the “Four Keys to Fun” is “People Fun”. “People Fun” creates opportunities for emotional competition, communication, and leadership. This motivation to play is derived from the increased feeling of winning that players have when playing with friends. The thrill of social interaction in and around a game creates amusement and social bonding. Walt Disney believed that shared experiences are compelling experiences, and this makes the users experience all the more meaningful (Pine & Gilmore, 2008). These experiences Disney describes, however, can only be felt if the players of the game are able to play the game with each other.

The challenge designers face when making this experience is grinding. Often purpose of grinding is meant to keep players focused on a task, usually fed by the players constant desire of rewards for an increase in power. The fact is, casual gamers often have less time to invest in leveling an online character and thus are often left utterly unable to compete (Steinkuehler, 2006). Player versus Player (PvP) modes in MMORPG’s are meant to feed that sense of competition within players. In order to

perform well in these modes, players need to have a deep seeded knowledge of not only the functions of their own character, but the functionalities of other players in order to anticipate their behavior. It must then be assumed that PvP modes are positively associated with knowledge about the games mechanics (Suznjevic & Matijasevic, 2010). Playing these modes, and providing ranks that players can advance through creates social emotions such as amusement, schadenfreude (pleasure at someone else's misfortune), and amici (friendliness), which are all positively associated with the sense of competition (Despain, 2013; Suznjevic & Matijasevic, 2010).

4.4 Wealth

In-game symbols of wealth, just like any real world symbol of wealth, are widely understood to influence human behavior. The sensation of wealth influences not only economic-related human behavior, but also in political, social, cultural, and even in religious domains of human behavior (Meinarno & Rahardjo, 2012). Within the virtual worlds of MMORPG's, this influence on human behavior remains true (Steinkuehler, 2006). Players strive to gain wealth or an abundance of possessions, be it a virtual currency, title, or ownership of land.

Having wealth gives players the power to do what they want within the confines of the game. However, just like with all things related to power in video games, obtaining wealth must be balanced to optimize the player experience. Understanding this balance within the virtual environment is comparable to understanding the balance of an economy in the real world. The reality of economy is built upon the jobs of workers,

welfare and charity. Yet, the idea of an institutionalized "rag-to-riches" story commonly seen in classic RPG character progressions are not so common in the real world. This is because jobs (quests, missions, etc.) exist for all player characters, providing a "fair" chance to advance. The virtual worlds of MMORPG's, for example, offer at the very least minimum wages to the player while not guaranteeing success. Again, without a balanced challenge, there is no fun.

Due to the nature of advancing, players will eventually reach the upper parts of the end-game. To get to this point, it is expected for the players to understand the necessary crafts and skills to behave the way the designers intended. As Dr. Edward Castronova (2008) would put it, if they were not learning the necessary crafts and skills "it's bad game design. It is no fun to grind your way forward at tasks that you will not have use for in the elder game" (p. 151).

Economic growth appears to be a byproduct of the initial design of the games virtual world, often which is irrelevant at best and problematic at worst (Castronova, 2008). If the games economic design is centered around the growth and power of the individual, then whether the economy grows or not won't matter. A good signal that the overall economic game is getting easier for players is if the amount of wealth per capita (or player) rises in a virtual world. The outcome of this means players who played the game early in the virtual worlds life faced harder challenges than those who played later after the game matured. This method of advancement appears to dilute the accomplishments of early achievers and therefore might also lend itself toward low sense of challenge and high boredom.

According to Dr. Edward Castronova (2008) “Growth does not alleviate isolation, depression, frustration, or rage, but it does give a lot of people the sensation of being richer (p. 153).” His research suggests that it is still not clear if the sensation of getting more and more wealthy is in fact more fun. If anything the pleasures of acquiring wealth seem to fade as more possessions are acquired (unless the individual becomes delirious with material desires).

4.5 Discovery

Discovery is a sensation players feel when seeking the joy of the new. Explorers, as described by Bartle (1996) are out for discovery. Whether its understanding how exoteric aspects of the games system works, or finding places that no one else has been to yet, players motivated by exploration play for this sensation. The actual gameplay is just a tool to enable exploration. Player types seeking exploration are not playing to master the game, they simply want to garner enough skill at it to explore unimpeded. It is of course very common for players to desire more than exploration alone (Suznjevic & Matijasevic, 2010).

Common MMORPG design practices provide players with some version of “questing” or mission in order to encourage players to go to areas of the world they have not yet explored (Suznjevic & Matijasevic, 2010). The purposes of providing exploration motivated quests can be many, but one of the core practical reasons for these types of quests is to give players a sense of direction; guiding the player to areas balanced for the players skills as well as their characters in game skills (Rogers, 2014). It is possible for

the player's skill at the game to open access to areas the games designers did not originally intend to give at certain points within the games story structure. Thus, designers must find a way to ensure these areas are blocked off. There are three general ways designers approach this: narrative, statistics, and skills/abilities (Tomai, Salazar, & Salinas, 2012; Rogers, 2014; Balducci, Grana, & Cucchiara, 2017). Classically, areas can be blocked by the game until certain narrative points have been completed. Another classic means to bar passage to an area is through character statistic walls; a point in a characters progression where the players' character must reach a certain statistical value to stand a chance overcoming whichever obstacle bars their way. Lastly, access to areas can be stopped if the player's character has not yet acquired a specific skill/ability, or item needed to pass an obstacle.

Within single player games, these means of advancement can be readily implemented as the designers only need to focus on the progression of a single player character. MMORPG's face a unique challenge as players seeking to explore with a companion (friend) may be hindered if their character does not meet the proper requirements to explore that area. While players seek advancement, designers must know how to balance the desire for players seeking advancement through exploration with players seeking a social environment. As the title of the genre suggests, MMORPG's are meant to encourage player to player interaction.

5. RESULTS

The analysis of the conceptual framework yielded a taxonomy of character progression types meant for the use of MMORPG's (although not limited to this single genre as the core research included some universal video game genre data). This taxonomy includes: the identification of character progression and its definitions, nomenclature of each of the character progression types, and the classification of each character progression type.

5.1 Identification

After defining character progression types (see section 1.4 Identification of Character Progression) and developing a conceptual framework, these analyses were used to clarify key similarities and differences regarding character progression, linear character progression, nonlinear character progression, and nonstatistic character progression. The identification of eighteen character progression definitions were developed:

Table 1. Identification

The player character advances through the game due to an increase in one or more character statistics.	The player character must unlock inherently better skills or abilities than what the character already possesses in order to advance.
The player character advances through the game by increasing the total number of skills or abilities the character is able to wield.	The player character must obtain a specific amount of virtual in-game currency in order to advance.
The player character advances through the game without an increase in one or more character statistics.	The player character faces a more difficult challenge while progressing due to lack of in game community resources.
The player character must obtain a specific in-game reward in order to advance.	The player character faces a less difficult challenge while progressing due to a surplus of in game community resources.
The player character is rewarded with something needed to advance by accomplishing a task with little to no challenge.	The player character must overcome an obstacle blocking access to an area in order to advance.
The player character is rewarded with something needed to advance for accomplishing a meaningful, challenging task.	The player character must progress through the games story to gain access to an area in order to advance.
The player character must complete a series of challenges in order to receive a reward but is never certain which completed challenge contains the reward needed to progress.	The player character must gain a specific statistic to overcome an obstacle blocking access to an area in order to advance.
The player character must gain a specific skill/ability to overcome an obstacle blocking access to an area in order to advance.	A character progression type where players progress in a game by starting at the bottom of a linear path of advancement and move up to unlock more content for their character.
The advancement method of changes that influence the character through gameplay.	A character progression method where the designer has chosen to progress the players character in no particular order.

5.2 Naming of Terms from Table 1. Identification

Ability Area Block Character Progression

The player character must gain a specific skill/ability to overcome an obstacle blocking access to an area in order to advance.

Ability Tier Character Progression

The player character must unlock inherently better skills or abilities than what the character already possesses in order to advance.

Abundant Economic Growth Character Progression

The player character faces a less difficult challenge while progressing due to a surplus of in game community resources.

Barred Area Character Progression

The player character must overcome an obstacle blocking access to an area in order to advance.

Character Progression

The advancement method of changes that influence the character through gameplay.

Earned Reward Character Progression

The player character is rewarded with something needed to advance for accomplishing a meaningful, challenging task.

Free Reward Character Progression

The player character is rewarded with something needed to advance by accomplishing a task with little to no challenge.

Linear Character Progression

A character progression type where players progress in a game by starting at the bottom of a linear path of advancement and move up to unlock more content for their character.

Material Wealth Character Progression

The player character must obtain a specific amount of virtual in-game currency in order to advance.

Narrative Area Block Character Progression

The player character must progress through the games story to gain access to an area in order to advance.

Nonlinear Character Progression

A character progression method where the designer has chosen to progress the player character in no particular order.

Nonstatistic Character Progression

The player character advances through the game without an increase in one or more character statistics.

Reward Character Progression

The player character must obtain a specific in-game reward in order to advance.

Scarce Economic Growth Character Progression

The player character faces a more difficult challenge while progressing due to lack of in game community resources.

Skill Quantitative Character Progression

The player character advances through the game by increasing the total number of skills or abilities the character is able to wield.

Statistical Area Block Character Progression

The player character must gain a specific statistic to overcome an obstacle blocking access to an area in order to advance.

Statistic Character Progression

The player character advances through the game due to an increase in one or more character statistics.

Variable Reward Character Progression

The player character must complete a series of challenges in order to receive a reward but is never certain which completed challenge contains the reward needed to progress.

5.3 Classification

By using the Conceptual Framework, an arrangement of the character progression types with particular characteristics were positioned according to their criteria and placed within their taxonomic hierarchy. Using "Character Progression" as the parent class, a subclass and a tertiary subclass were added to the hierarchy due to the commonalities found within particular progression types. Six subclasses of the "Character Progression" parent class were discovered: Linear Character Progression, Statistic Character Progression, Barred Area Character Progression, Skill Quantitative Character Progression, Material Wealth Character Progression, and Reward Character Progression. Within these subclasses, eleven more tertiary character progression subclass types were discovered: Nonlinear Character Progression, Nonstatistic Character Progression, Narrative Area Block Character Progression, Statistical Area Block Character Progression, Ability Area Block Character Progression, Ability Tier Character Progression, Scarce Economic Growth Character Progression, Abundant Economic Growth Character Progression, Free Reward Character Progression, Earned Reward Character Progression, and Variable Reward Character Progression. Figure 2 illustrates this classification character progression types:

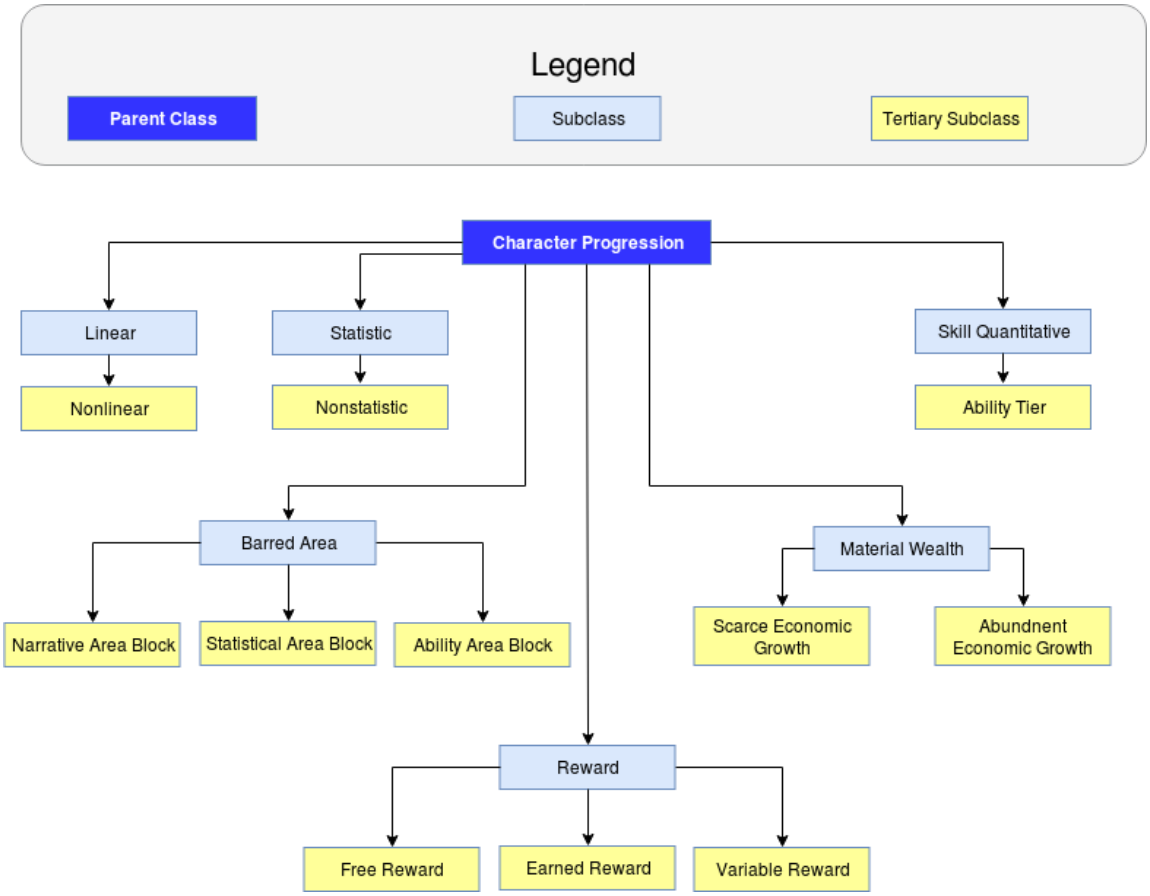

Figure 2. Classification

6. SUMMARY AND CONCLUSION

6.1 Discussion

The goal of every designer is to make their game a fun and engaging experience for their target audience. Yet, designers cannot do this if their time is spent arguing over the merits of narrative in video games. The lasting debate of ludology versus narratology may soon come to an end as researchers and developers explore the idea of how a video game can be used as a narrative. Closing debates such as this opens the door for research meant to strengthen the overall design of video games.

The taxonomy in this paper is meant to service designers in their critical thinking process, enabling them to better accommodate their specific audience of players to potentially reduce player churn rate. The results however, were based off the collective player types and documented player motivational behavior founded on their research of game dynamics. The intent of this paper was to fine tune the sensations that were categorized as a form of advancement in motivation identified by Bartle (1996), Yee (2006), and Billieux et al. (2012). Thus, it does not include all measures of motivation and sensations associated with the progression of characters within video games. Nor does it include all the measures of motivations and sensations associated with the progression of characters outside the medium of video games.

There's a near age old saying by Martin Luther "Even if I knew that tomorrow the world would go to pieces, I would still plant my apple tree." What he might mean by this statement is people should not act in expectation of some future outcome or reward, but rather, should look for the reward in the actions themselves. However, some

research suggests that in reality, players in MMORPG's don't behave this way. In 2017, a study of player behavior was conducted within an MMORPG title *ArcheAge* during the games closed beta (Kang, Blackburn, Kwak, & Kim). At the end of the beta, all user data was deleted. Results of this research found an easily recognizable trend that players did not usually invest their time in making their characters better or stronger (i.e. leveling up, ability changes, experience point changes, etc.) once the end of the virtual world approached. The reasons players behaved this way could be numerous, however, designers should consider the dynamics and mechanics as key factors to this behavior. The time in which it takes for players to progress their character, and the outcome of each tier of progression should have an impact on the players psyche. If the initial gameplay and mechanics are fun before forms of progression are added, then the games overall foundation of fun could very well increase the players engagement in the long term and reduce the player churn rate.

6.2 Conclusion

These simple observations made from other researchers allowed the creation of a taxonomy of character progression types. However something more profound can be made from this taxonomy and the research it is designed from. With this information, it is possible to empirically test and generalize how each character progression type design affects human behavior as separate entities or in groups. The results could then be used to create a simple, yet elegant formal strategy guide for designers. A strategy guide that can allow a designer to assess a new mechanic, system or element to the game, even an

idea that is radically new and untested, and figure out what type of play to expect from the players. The taxonomy of character progression types can be updated and new progression types can be added on as designers discover new behaviors and forms of advancement. Doing so, could ultimately serve to better accurately identify the reasons for player churn and work for solutions to decrease the rate of churn.

The trifecta industry developers have to balance in every project is fast, cheap, and good (Despain, 2013). In a perfect world, the ideal game would be developed with all three; created quickly, without much expense, and demonstrate a high quality product by user standards. While this is ideally the plan for every project, it is impossible. Still, games are interactive experiences designed for the player. As such, their study requires understanding beyond the formal rule systems designed into them. A strong taxonomy backed by research and dressed in an easy to read format can help improve the reality of how long the design process can take. The full range of human practices through the many virtual worlds that they inhabit are meant to be meaningful. Delivering design research data in a friendly format is one more step to that end.

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