Roll 20 for a Successful Compile: A Game Development RPG

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ABSTRACT

Nowadays games are often used for learning puroposes, but games about game design are certainly rare. This ongoing project approaches game design experiences from a Table Top Role Playing Game perspective, named "Game Dev Studio RPG" (GDS-RPG), intended as a learning tool for game development project management courses or activities applied to mid-school grades and above. This game looks after a way for students to know how a game studio is organized, the different skills and talents needed in order to fulfill a game development cycle, how game developers interact and the complexity that emerges from those interactions. The goal achieved at the moment includes attribute system, base archetypes for "devs" and basic projects (quest) structure. DiGRA community obtains another teaching, and learning, alternative for game design, particularly on certain activities where real experiences are yet to be some years ahead for students or enthusiasts.

Keywords

Serious games, meta games, game development, game assisted learning.

INTRODUCTION

Gaming with learning purposes are no longer a dream. Actually they were never a dream because, since ancient times, games were frequently used as teaching and learning tools, for instance "weiqi [go or baduk game] developed into a central facet of scholarly aristocratic culture, eventually ranked with calligraphy, painting and music as the four great arts, ande remained an important part of the education of the Chinese elite for millennia" (Halter 2006, 19). Those black and white stone variations, including chess pieces teaching strategy, led to more complex and reality-based versions for teaching something. A game where "an umpire determined the results of each melee, employing dice and statistical tables based on data gleaned from military history" (Halter 2006, 41-42). Such game is known as Kriegspiel or War Game.

During 1960's war games were a quite popular gaming scene, and a man named Gary Gygax was an active wargame player where he "played in Arneson's Napoleonic Simulation Campaign, which assigned continuous characters to each player: those of national rulers at the time" (Peterson 2018, 57). The seed of modern role playing games was sown. So, Role Player Games (RPGs) inherit most of the education tool laid

on ancient strategy board games, and they stimulate several abilities and attiudes, such as creativity and colaborative work (de la Mora 2020, 133). Gaming have appealed to quite diverse experiences, including simulation which progressed towards meta-games, those than can "create videogames related to video game creation" (Hernández 2023, 190). Therefore metagames, showing players certain aspects of game development, and RPGs, allowing those players to perform as a game development porfessional, are an interest combination: How to design a Role Playing Game centered on Game Development? That´s the main reason for this project.

Then GDS-RPG is an approach to a metagame in Table-Top RPG format. According with Hernández, it is a game focused on Development process as a whole. This approach "centers on creating a development studio and 'development' the most games as possible, technologies and development tendencies, as well as 'comercialization' the 'developed' product" (2023, 192). The following sections describe the game system, organized into two great sections: The Player Definition System and the Projects (Campaigns) System.

THE GAME SYSTEM: PLAYER DEFINITION

Several RPGs define their characters according to its specific narrative context, for instance Free League Blade Runner RPG (2022) names every player character as a "Blade Runner" (BR) because the game centers on police investigations with Replicants[1] involved. Players can have certain personal secret information, even unknown to them (That the BR may be a Replicant himself), which aims to center on character personalities rather than aspirations. Alien RPG (Free League 2020) takes a more generic approach, naming it a Playable Character or "PC", due to a specialization focused on "careers" due to a wider role variety, from civilian to military characters[2]. For GDS-RPG the players will be denominated as the generic "Devs". Most games define specific type of players as Classes, Alien uses the term Careers and Blade Runner Archetypes, this is the name selected forGDS-RPG.

Archetypes

Players will create their "Devs" according the following seven archetypes. Most of them will be close to common roles within game development activites. There is another archetype, similar to Deprived class on Dark Souls (From Software 2011). This is intended to offer players a vision of an amateur developer, who's lacking most of the skills and experiences needed for a much better performance.

Programmer

The programmer does the coding of the game instructions, high focus on logic and technical issues about the game, and interfaces. Usually lacks of skills related to aesthetics of the game: art, characters, music.

Designer

Designer has the soul, is skillful, able to create music, characters, scenery, designers make the game appealing.

Market Specialist

Programmers and Designers know how to make the game, but Market Specialist know how to sell it.

Manager

Managers have the leading skills, the proficiency traits in order to reach goals such as deadlines, they can stimulate other members o the developing team to fulfill their tasks.

Ludologist

Ludologist builds the game and know how to balance the system, they make them interesting, challenging or accesible.

Tester

The Tester specialty lies on finding errors, they help on reducing time for debugging.

Enthusiast

Enthusiast are the amateur devs, they want to make games, have the heart to make them, but lack most of the skills needed. The Enthusiast archetype equals the Deprived Class in Dark Souls.

Challenges

Challenges are the equivalent of actions in most RPGs, they represent tasks to accomplish in the development process. Challenges may be faced by any archetype, but are easier for some and harder for others. This a preliminar list of challenges.

Coding

Coding challenges represent sotware activities.

Resource

This are the challenges for Designers: creation of assets, characters, sprites, music, sound effects.

Promo

The challenges for Market Specialists: advertisement, conferences, presentations.

Gameplay

Gameplay challenges have the potential to make a game entertaining, boring, hard or easy.

Leadership

Every challenge will have a stress factor, without a proper leadership the Devs will accomplish the task, but they can take longer time, they can be more stressed, a proper leading will reduce this factors, and that can be achieved through a good leader.

Archetype/Challenge crossing

Table 1 illustrates how the Archetype and Challenges cross their properties, Te plus symbol represents a bonus for the archetype when facing the challenge, whilst minus symbols represent penalties.

Archetype/ Challenge	Coding	Resource	Promo	Gameplay	Leadership
Programmer	+++	-	--	+	-
Designer	-	+++	-	+	-
Manager	+-	+-	+-	+-	+++
Market Specialist	--	+	+++	--	+
Ludologist	+	+	--	+++	-
Tester	++	-	-	++	--
Enthusiast	--	--	--	--	--

Table 1: Affinity for each challenge type with every archetype, expressing bonus or penalty applied.

Attributes

The game design seeks to attend a Rules Heavy approach, as Zagal and Björk point (2018, 325). This imposes a system with several attributes, namely five, which are described next.

Logic

Logic represents the skill for decision making and problem solving, evidently is the higher attribute for programmers, ludologist and testers.

Sociability

Sociability represents the skill for a character to relate with others, it will be predominant on Managers, Designers and Market Specialists. It will also affect every dev when realising activities with another Dev.

Creativity

Though inherent to any Dev, creativity focuses on Design activities, so it will be the prominent attribute for Designers, Ludologists and Market Specialists.

Stamina

This is the energy a Dev has along the game, every action they make will consume stamina. If it falls beyond certain tolerance umbral, the Dev will accumulate stress, reducing their proficiency. Enthusiasts will have the greater value for stamina. Stamina will recover after resting. Stamina will work more like a lifebar than a regular stamina bar.

Tension

Tension represents the threshold for stress tolerance. The higher this value, the more easily the Dev will fail in their challenges. Tension value will reduce with Experience category, or with certain Leader skills. It can increase its value when a Dev can't recover his tension to regular levels before starting a new shift, reaching a Burnout condition. Burnout rules will be explained later.

Traits

Traits are personality features for the Dev, and they must have two of them when creating the character, these traits are permanent, bringing bonuses or penalties in their performance.

Level Progression and Experience Categories

Dev Progression is organised with two indicators: Level and Category. Level represents the total experience a Dev has accumulated along several projects. Level increases every 100 experience points, and every three levels the Dev advances one category. Category affects a Dev tendency to commit failures. This failure generation is controlled with a dice of less faces. Failures will increase time and resources consumed for a challenge to be completed. Further details on Failurers will be discussed in the Project Section.

Dev Category	Fail dice size
Rookie (Lvl 1-3)	D10
Junior (Lvl 4-6)	D8
Senior (Lvl 7-9)	D6
Lead (Lvl 10-)	D4

Table 2: Die for fail throws upon Dev Category

Skills

Skills are equivalent to techniques in most RPGs. They are associated with a particular Archetype. Every Archetype starts with a specific skill set. Every Level upgrade will

allow the Dev a new Skill, suitable for their category. Devs can learn skills from other Archetypes trough a special Challenge, named Training. Skills receive bonuses from Level Progression. Examples of skills are: Level Design (Designers), Optimization (Programmers), Community Management (Market Specialist), Adaptative Difficulty (Ludologist), Gantt Planning (Manager), Bug Forcing (Tester). Enthusiasts will have the choice of two Skills when creating their Dev.

After covering the Character System, now the Campaign component will be described.

THE GAME SYSTEM: PROJECTS OR "CAMPAIGNS"

Proyects are equivalent to campaigns in GDS-RPG. Projects will be defined by means of a project sheet, and several indexes.

Indexes

Indexes are the project metrics, they represent the global resources from the Game Study in order to complete the development activities. These indexes are:

Budget

Is the amount of money the study has to complete the project, every challenge has a monetary cost, which will be deduced from the budget after completion. Every challenge will declare its costs, considering: Devs involved (salary for every Dev for time unit), extra cost for failures and corrections. Managers will be responsible for budget extension negotiations when necessary, they also have the faculty to contract more workforce, or reducing costs. Burntout Devs will require time to heal, resting until they reach a tension value of zero, but they will receive their full salary.

Deadline

Deadline represents the amount of time the study has to complete the game. Time is controlled with labor shifts, divided in hours. Each hour represents one turn for Devs for progressing in their activities. Managers are entitled to organize shifts. Crunching is an option, with diverse negative consequences, such as a greater risk of Burnout for Devs. Managers will need to be observant of delays and potential launch delays of the game.

Investor Board

The Investor Board is the name for the "Dungeon Master", is the one who decides consequences of certain situations, specially those related to time and budget.

Project Sheet

The Project Sheet describes the basic values for budget an deadline. It also includes a description of the minimum staff required (Devs, indicating archetypes, salaries for each), time conditions (shifts, and turns per shift recommended). It will also contains a list of challenges and their sequence. Additionally, it can include some crisis situations and specifications in order to trigger them suring development process. Defintely this is the most complex feature to design in the game

Solving Challenges and Failures

Every Challenge in the game will need the data specified in Table 3: .

Section of the Challenge	Description
Challenge description	Includes the type of challenges involved, for instance: Combat animation sequence. Coding, Design, Gameplay
Number and type of Devs required.	How many Devs will be assigned to the challenge. 1 Programmer, 1 Designer, 1 Ludologist
Experience gained for Dev type implied.	How many experience points each Dev will obtain on a completed Challenge. Example: Programmer Exp=12 Designer Exp=8 Ludologist Exp=12
Skills required	Specific skills needed in order to achieve the task. For example: Programmer requires Collision System skill.
Task points to achieve	In order to complete the challenge all Devs must obtain a minimum of task points, for instance Coding (15), Design (10), Gameplay (12)
Task Difficulty	For each challenge type a base hability score must be specified. Difficulties Coding (12), Design (16), Gameplay (19)

Table 3: Challenge requirements

Task difficulty sets the minimum score on the dice throw (using 2D6+ base attribute) in order to consider a successful action. A Dev with Logic=6 will need to throw at least a 7 to reduce Task Points remaining. The number of points reduced equals the difference between Throw versus Task Difficulty. If Dev rolls a 9 adding his Logic value is 15, minus 12 of difficulty, then he deduces 3 task points. Having now 12 points to complete.

A difference of zero doesn't affect the count of task points, neither failure points, but a negative result will force the Dev to roll his Failures dice. The roll result will increase the respective failure task points, which will be resolved after the base task points vill be completed. Failure task points won't generate additional failure points. Investor Board has the faculty to replace failure points with quizzes related to real life skills needed in order to solve the problem. Devs are allowed to propose real life skills or ideas in order to solve the problem, Investor Board can evaluate how valid such proposal is.

A Challenge will be complete once all Task Points are earned. During a Challenge there are no Critical Rolls neither Successful o Failure, except if the Dev proposes a real life solution as first action. Timeline advances according to the number of turns needed for a task completion. If a Challenge consumes the shift duration Managers need to decide the course of action: Maybe Devs can continue next day, next shift can continue the task, maybe crunching the Devs until the challenge is complete.

Rolls also must be used to determine stamina consumption, Succesful rolls decrease 1 stamina unit , a no failure (roll equal to task difficulty) decreases 2 stamina units and failure rolls do 3 point deductions. Every failure task points decreases 2 stamina units.

Resting After Shifts

Once a shift is completed, all Devs go to rest. They can spend salary points in order to recover stamina. They can roll a D4 for 1 salary unit. Roll value brings equal number of stamina recovered. If a Dev is in Burnout condition, rolls will cost 2 salary units. All Devs will rest naturally, recovering 8 Stamina in regular condition but only 6 on Burnout condition. Burnout Devs during a shift will have a -1 penalty on their rolls. Devs also can advance using training Challenges during rest periods in order to get more experience and unlock new skills. Trainings have specific salary costs when done during rest periods. Every level promotion adds 6 points of stamina.

CONCLUSIONS: EXPECTED BENEFITS AND LEARNINGS FROM GAME EXPERIENCE

This project has achieved phase one, which consists of the design of a base system for Dev creation and project (campaign) operation, next phase consists on designing a base project and testing it with different Dev parties. During phase two there will be received feedback from players related to game functions and a surely needed balance of currently proposed values. Also user experience impressions will be recolected. It is expected players increase their undesrtanding of game development processes, complexities of same processes and dynamics of closer to reality labor enviroments. Number of tests and parties are yet to be determined. Such testing process will be designed using the Incorporation Model[3] of Gordon Calleja (2011), in order to value player experiences during and outside gameplaying.

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ENDNOTES

[1] A Replicant is some sort of an android, so alike a human being that is quite difficult to determine if it is really a human. The Blade Runner movie (Scott, 1982)

[2] This obeys to the film series context, where space truckers, kids, corporate officers, military personnel, even scientists inhabit the world o fe the universe created with the Alien movie (Scott 1979).

[3] Calleja's model is not a testing model, but a relationship between players with games and with other players. It posess six involvement dimensions (kinesthetic, spatial, shared, narrative, affective and ludic) and two temporal phases (micro, during gameplay and macro, outside gameplay) for each dimension. This brings an interesting conceptual framework to describing gaming experiences from the players and further analysis.