



STUDY TO FIND PATTERNS OF GOOD MOBILE GAMES

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ABSTRACT

Digital games are non-linear, interactive, and participatory and entertainment activities played on consoles, computers, mobile phones and other digital devices. These days, in India and everywhere in world, smart phones have become a very common thing. Everywhere, we happen to see people engaged on smartphones. Smartphones have lots of apps which may serve some utility or entertainment. Games are also available on mobile app stores in free and paid form. There are games which player may purchase after trying or may unlock its further levels by paying. There are games on all mobile app stores for every taste and preferences, be it children or elders, boys or girls, youngsters, women or hard-core gamers. A game is combination of game art and game logic. There are some integral elements of a game such as graphics and animation, interactivity, user interface, game play, sound etc. There are texts available which discuss elements of games in terms of Digital games on console and computer but not on mobile device. This study discusses the elements of games for mobile games. This paper investigates which element of game is important to what extent for common gamers. A study done on a group of students of a class studying Animation and Multimedia and Digital Games in an institute of higher education in Delhi NCR, India reveals which mobile games are liked by them and what elements of a game attract them. This paper can help game designers to understand the mindset of Indian gamers and help in developing more successful games.

INTRODUCTION – DIGITAL GAMES AND ITS ELEMENTS

Digital games are technology-aided learning tools which can be used for entertainment as well. Good games are good learning machines. While making a

digital game, not only the game art and game logic; the two integral components of game design are considered yet lot many elements of a game are planned by game designer after doing thorough research and observation. Games which are looked upon as a form of entertainment and as a tool for learning influence the people and culture and vice versa. So, an understanding of audience, their society and the topic of the game is necessary for game design. Board games and traditional games have always been inspiration for new games. No doubt, ever improving technology for example virtual reality options enhance the interactivity, impressiveness and quality of games or virtual interactive entertainment; which is going to be a big boom in coming times. In such an environment, to develop good games; an understanding of basic building blocks or integral components of a game is important. Various texts have documented the elements of games in diverse ways.

Digital games have come along way since their birth in the late 70's and are one of the most popular forms of entertainment even today. Games have changed platforms from consoles to mobile phones. The elements of a game have been given in Game Theory which is a theory of Mathematics given by John von Neumann and Morgenstern (1944) and Game Designers concepts like Chris Crawford, Andrew Rollings and Ernest Adams have also given elements of game according to Game Design principles.

According to Game Theory, a game must specify the following elements: the players of the game, the information and actions available to each player at each decision point, and the payoffs for each outcome. [Game Theory, Wikipedia] Game theory is mainly used in economics, political science, and psychology, as well as logic, computer science, and



biology. [econ.uiuc.edu] One should keep in mind that elements of game for Game theory and Game (as per Game Designers) are slightly different.

According to Game Designers Tracy Fullerton and Chris Swain (2014), the formal elements of a game are players, objectives, rules, procedures and resources. Chris Crawford (1982) perceives four common factors of a game - representation, interaction, conflict, and safety.

Traditionally the 'story' always comes first in any game and without an exceptional story we can't have a great game. While this is for the most part true, gameplay is equally important as story and as important for achieving a great game. In some cases, a hit game can be built entirely on great gameplay without much of a story just like in "Angry Birds" which is a mobile hit game. This game doesn't focus on drawing players into the story, but it has incredible gameplay which makes it a success. A game can have an awesome story, but if the gameplay is bad there'd be no reason to play it. [pluralsight.com] Games need to be 'interactive' to make them fully 'immersive'. Games give 'control' to players and add 'interactivity' unlike movie where end-user is a passive observer only not a participant. These 'controls' (choices) should add fun in the games not the complexity. "It doesn't matter if the gameplay is complex or simple, it needs to be solid. It should feel like it's doing what it's meant to do, with clear controls and valuable feedback to the player." [Pluralsight.com]

Perspective describes how the player sees the world on the screen. In war games, players usually have an aerial perspective above the battlefield. If the view is from directly above, like looking at a map, this is called a top-down perspective.

Levels means the stages. Levels should become tough gradually. It will help in making the flow of game. Games should be easy in beginning and gradually tougher. So that these could be enjoyed by novice and hard-core players equally.

Defining the player's role in the game world is a key part of defining your game's concept.

Games may have distinct modes, in which the nature of the gameplay changes significantly from one mode to the next. War games, for example, might have a

Some other elements cited by various websites are - Challenges, Rules, Gameplay, Victory Condition, Setting, Interaction Model, Perspective, Levels, The Player's Role, Modes, Structure and Realism.

Challenges means offering decision making situations to the player; putting player into a situation where he should act to proceed further else he will die.

When you decide to play any game, it's important to establish the rules in advance.

Game play means the way a player plays a game. So, offering various interactive situations will make the unique game play of everyone.

Victory Conditions or Goals and Sub Goals are meant to keep track of success and growth of the player. It gives mental satisfaction also to learn about one's progress.

Setting means the environment where a game is set. It is the theme which is made by color scheme, graphics and animation, sound and music of the game.

Interaction model means the way that the player interacts with the game world—takes actions to overcome the challenges. Two interaction models are particularly common in computer gaming. If the player plays in the game world by controlling a single character or pawn that represents him, and if that character exists and influence the area around him, that character is called his avatar.

strategic mode in which you plan which battles you intend to fight and a tactical mode in which you fight.

Structure means the flow chart of the game. The entire frame of game.

Game should depict the world even an imaginary one, in such a way that the principles of real-world logic and common sense apply. We cannot ignore real life principles in a game even if it is fictitious.

STUDY DETAILS

A study was done on 25 second year students of B.Sc. Animation and Multimedia course in an institute of Higher Education in Delhi NCR, India in January 2018. Firstly, for a month they were delivered lectures about elements of a digital game and basic concepts related to digital games were also discussed. At the end of January month, a

questionnaire was given to them which contained questions about their liking for elements in a game. These questions were of five-point likert scale. Out of total 25 respondents who happened to be of a Metro demographic background, there were 5 females and 20 male respondents. Their age group ranged from 19 to 21 years. They all have exposure to games on mobile phone. 6 of them play games ‘daily’, 8 play games ‘rarely’, 7 play games ‘sometimes’ and 4 play games ‘very often’.

When asked how much important are the following elements of game on a five-point likert scale; meaning 1 value for least important and 5 for most important. When inputs given by respondents were added the following result was there:

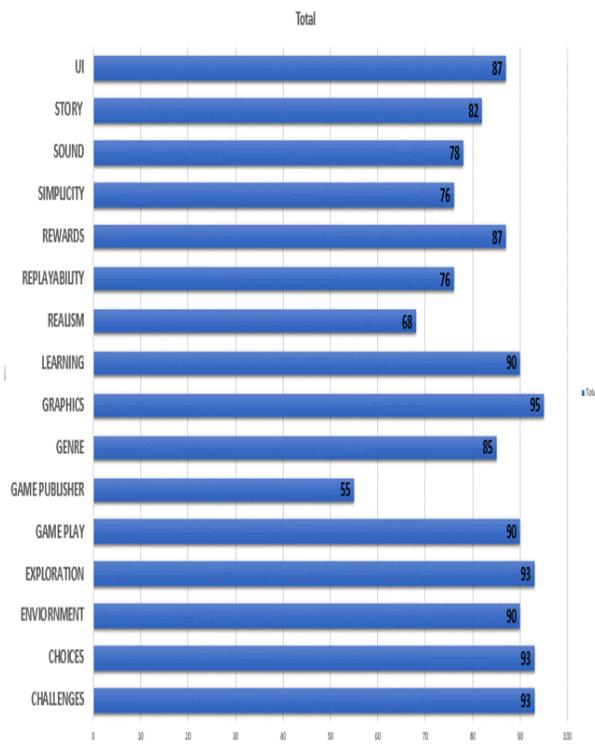


Figure: Bar graph showing which element of a Game attract them to what extent

- First rank: Graphics and Animation
- Second rank: Challenges, Choices offered in Game, Exploration
- Third Rank: Game Play, Game Environment or Ambience, Learning from Games
- Fourth Rank: User Interface, Rewards
- Fifth Rank: Genre of the Game
- Sixth Rank: Story

- Seventh Rank: Sound
- Eighth Rank: Simplicity of the Game and Replay-ability
- Ninth Rank – Realism
- Tenth Rank – Game Publisher

Games like Candy Crush Saga, Ludo king and Subway Surfers are the most popular games amongst the respondents.

Since this survey represents the opinions of a small segment and the sample size is also quite small but it gives a tentative idea to game developers and artists which they can keep in mind while making mobile games.

ABOUT THE POPULAR GAME AMONGST YOUNGSTERS



Image: Popular Mobile Games as liked by respondents

Candy Crush Saga, Ludo king, Asphalt Xtreme and Subway Surfers games are popular because of the following reasons:

Candy Crush Saga is a free-to-play match-three puzzle video game released by King on April 12, 2012, for Facebook; other versions for iOS, Android, Windows Phone, and Windows 10 followed. [Wikipedia] This game is popular because of its eye catchy graphics, music, puzzles and simple fluent game play which gets tougher gradually.

Ludo King is a cross platform game that supports Desktop, Android and iOS platform at same time in online multiplayer mode. Ludo game traces its lineage back to 6th century India. Ludo is derived from the game Pachisi. Ludo is also very similar to Spanish board game Parchís [Play.google.com] There are many similar versions of Ludo game are



available on app stores. People like this game because of its simple game play, multiplayer option and because its inspired from childhood game of everyone – the board game Ludo. Every Indian had played this game physically in their childhood.

Asphalt Xtreme is an offroad racer from Gameloft. You'll be racing on a variety of offroad tracks with a variety of vehicles. Currently, there are 35 vehicles that you can drive that cover seven distinct categories. Gameloft will likely add more to the game later. The game also features online multiplayer racing

Released in 2012, Subway Surfers is an endless runner mobile game co-developed by Kiloo and SYBO Games, private companies based in Denmark. It is available on Android, iOS, Kindle, and Windows Phone platforms. It's an all-around polished and solid game that offers a lot of content for a simple infinite runner game. You have a number of characters, costumes, and cosmetic changes to choose from to add some flair to your game and give you a goal to shoot for while playing. The music is nothing too inspired, but it doesn't get in the way so that's nice. [Daniel Treccagnoli (2017)]

CONCLUSIONS AND RECOMMENDATIONS

Based upon this study, observation and literature review author gives the suggestions for game developers and designers for designing successful games. Although there is no formula for the success of a game yet the researcher believes that Game Play is the most essential element of a game. The intuitive, immersive game play can be created by a perfect mix of all other elements like graphics-animation, sound, story, interactivity etc. However, the result of this study has concluded that Graphics and Animation are most important for gamers which is also true because they set the look and feel of the game. This can be felt in all those games which have emerged as favorite games of respondents i.e. Candy Crush Saga, Ludo king and Subway Surfers games which are rich in graphics. It will be prudent to say that a perfect blend of all elements is required for the success of a game and how this perfect blend can be achieved is a skill which comes with experience and constant observation.

We can sum up with the words of designer RaphKester: -

“Games work best (at teaching) when the challenges are organic to the experience, rather than out of left field... just strapping an incentive structure on rote practicedoesn't work very well, compared to instead building a long-term goal structure, and then presenting challenges on the way...”

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