

1.0 Pac-Man Computer Game

I had been introduced to Pac-Man game during my teenagers about twenty years ago when I used to know and learn how to use a computer from my computer lab in school. I would say that this is my first computer game that I have played and one of my favourite games.

Pac-Man is a 8-bit memories arcade game which has been developed by a Japan company, Namco. It has been released for the first time in 1980. It's quite an old and classic game but has been popular and became a social phenomenon in the world. The game competitors during the time are Space Shooters, Space Invaders and Asteroids. However because of its uniqueness which is offered a new genre and appealing to both genders, the characters in Pac-Man has appeared to be an icon for any brands and became the highest brand awareness among computer game characters. Pac-man is one of the longest running of video game franchises from the golden age of video arcade games.

Pac-Man is based on a single or two player games which controls a cute pizza-shaped character gobbling Pac-Dots in a maze and avoiding or chasing colourful characters of enemies (Ghosts or Monsters),Blinky, Pinky, Inky and Clyde which are responsible to roam around the maze and trying to catch Pac-Man. It has a friendly design, little violence and everlasting of fun. Pac-Man is controlled just by arrow keys or clicking on the maze using WASD keys.

Nowadays, over 30 years old it is still running for game and now has been much more sequels which can be played on mobile, android or apple based application with advanced controller supported. Pac-Man game is easy to learn but hard to master.



Figure 1 : The screen of Pac-Man game

2.0 Game Component Framework

In the Patterns in Game Design book, described the game component framework as shown in Figure 2. These physical and logical components of a game design patterns based on an idea that the player makes quantitative changes in the state of the game.

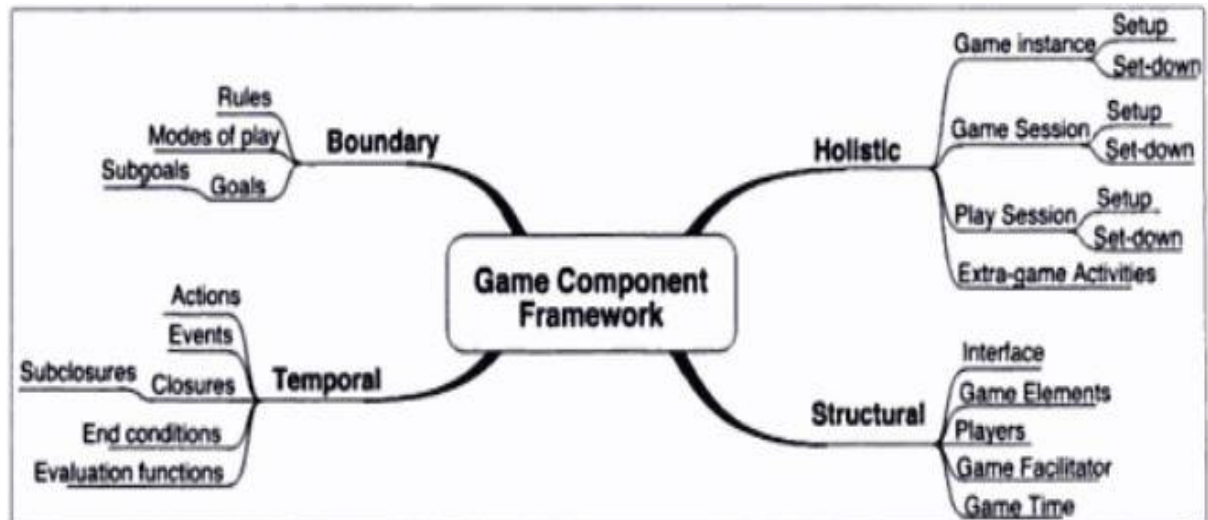


Figure 2 : The game component framework.

The game component framework for Pac-Man as listed below :

2.1 Holistic Components

2.1.1 Game Instance

The game starts when we turned on our computers or mobile devices and login to the screen of the installed Pac-Man application. The game ends when we leave the game and logout the screen.

2.1.2 Game Session

A new game session started when we click on the start button by using a keyboard or mouse. Game session ends when we lost the game by all lives has been lost or we quit the game session or retry to another game session.

2.1.3 Play Session

When all Pac-Dots are eaten, Pac-Man is taken to the next stage which comprises of easy, medium and hard levels. The different stages have different kind of difficulties such as the ghosts or monsters become more brilliant and roam faster.

2.2 Boundary Components

2.2.1 Rules

While Pac-Man roaming around to gobble as many as Pac-Dots for points, the four enemies limit the actions of the player. If an enemy touches Pac-Man, a life is lost and the Pac-Man itself withers and dies. When all lives have been lost, the game ends. The enemies are brilliant which they can chase the Pac-Man most of the time when they come nearer, but also moves toward the lower-left corner of the maze.

2.2.2 Modes of play

Pac-Man is a single or two players game with not more than one single mode.

2.2.3 Goals and sub goals

The main goal of the play is to score as many points by eating Pac-Dots all around the maze and finish them all to start another stage. A perfect Pac-Man occurs when the player(s) achieve maximum possible score on the first 255 levels. For the sub goal, big points or bonus if Pac-Man eat one of four flashing dots which is called as Energizers or Power pallet near the corner of the maze. The energizers provide Pac-Man with temporary ability such as all the monsters turn to run away from Pac-Man. However, the more mazes the player clear, the shorter Energizer phase is. The character of fruits are worth more points. By default, every 10,000 points, Pac-Man is awarded a single bonus of life.

2.3 Temporal Components

2.3.1 Actions

The player(s) actions of input are by using keyboard or mouse to change the Pac-Man directions (left, right, up or down).

2.3.2 Events

All the actions are based on the motion of the Pac-Man to gobble as much as Pac-Dots through the maze for points and run away from the enemies.

2.3.3 Closures

The player(s) closure could happen by completing all the Pac-Dots and turn to a new stage of level or lost all the lives and the game session ends.

2.3.4 End conditions

Requirement for ending a state is by completing all the Pac-Dots or losing all the lives to continue the game.

2.3.5 Evaluation functions

There are no algorithms for determining the outcome of the game but just a pattern or strategy to improve playing the game.

2.4 Structural Components

2.4.1 Game facilitator

The game console sets up the game and synchronizing the game state during the gameplay.

2.4.2 Players

The game supports single or two players by using keyboard in each game session but only one player by using mouse or touch screen.

2.4.3 Interfaces

The game interfaces are really friendly and giving all the information about the state and possible actions. The states include the score points, lives, the enemies' position and so on. There is also an intermission screen every time the player(s) go to the next stage or completing the game.

2.4.4 Game Elements

The physical and logical components that are manipulated by the players is only the Pac-Man. The enemies, Pac-Dots, Energizers and Fruits are by game design patterns. However, the enemies will chase the Pac-Man when they come closer.

2.4.5 Game time

Pac-Man was designed to have no ending, up to 255 levels (by eating every possible dot, power pellet, fruit, and enemy) without losing a single life – as long as the player keeps at least one life, he or she should be able to play the game.

3.0 References

<http://en.wikipedia.org/wiki/Pac-Man>

<https://itunes.apple.com/en/app/pac-man/id281656475?mt=8>

<http://www.classicgaming.cc/classics/pacman/index.php>