Rules and Boundaries

Shape the game world more than anything else

- What the player can and cannot do
- Rule
  - Advice used to control, govern, and circumscribe enclosed within bounds

- Boundary
  - In game terms defines limitations
  - Can be a constraint or the world space or a game feature such as health or magic power

Rules and boundaries are applied to every element of game design.

Compare Checkers and Tetris
Checkers: Europe since the 1500's
BM has specimens of ancient Egyptian checkerboards

1. Checkers Rules (64 squares, black and white)
   - When playing checkers, the player must only use the black squares, and they must remain on there for the duration of the game. No piece can venture onto the white squares or outside the arena unless a player's piece has been taken, in which case it is removed from play.
   - Tetris is very similar in that respect. The game arena is deliberately restricted and you cannot, even if you wanted to, venture outside of the predefined space.

   Tetris has the same effect on the player as checkers, in that the restricted boundaries force the player to think about what is coming next and to consider where the player will place the next piece for maximum effect.

   It is important to know which pieces are the player's and which pieces are the enemy. Pieces in checkers are black and white. In Tetris the pieces are identified by using two methods: there are a set number of pieces, all of which have different shapes, but are made up of four squares which is one important rule for the game play.
   - The shape is the first method of identification of a piece.
   - Every piece has its own color, which helps the player to acknowledge them quickly at a glance.

   If your game requires quick thinking and immediate action, like role-playing games (RPG), real-time strategy games (RTS) and action games, the player will not have time to examine who is who in the world, it has to be clear.

2. At the start of the game of checkers, the players must place their pieces in the arena. The pieces must always be placed in the same position. The black pieces are placed on the first 12 spaces and the white/red pieces are placed on the last 12 squares. It is

always the same. The only thing that can change at this point is the color of the pieces each player has chosen.

- But before a game can be played each player must know all the rules.

3. The player, who has chosen black, always makes the first move, after which the players move alternately.

4. The players whose turn it is to move proceeds by advancing one of his pieces diagonally forward to an adjacent square. However, several possibilities scenarios could be presented to the player at this point. If an opponent's piece occupies on an adjacent square, and there is a vacant square immediately behind it, the player MUST capture that piece. This is required. The player achieves this by leaping over his opponent's piece and removing it from the board. If possible, the player must continue capturing pieces, with out removing their hand, until all pieces are captured along the path, at which point this turn is over. The exception to this rule is if there are several pieces that could be caught that are not changed, the player then has to choose which of the opponent's pieces his would like to take. There are not multiple turns.

5. If a player fails to recognize that an opponent's pieces can be taken, the opponent as a penalty can then remove the piece that should have been captured.
   - The rules to checkers provoke strategy and planning while playing the game, just by adding a few simple rules. Further rules expand the game and make it more challenging and ultimately more fun.

6. If a player reaches the opposite side of the board, to a space originally occupied by his opponent, without being captured, then that piece becomes a king and is crowned by placing a captured piece on top of the piece in play.
   - In video game jargon, this is where the piece in checkers becomes "powered up," adding another dimension to the game. Simply put the king in checkers has "special powers".
   - Video games often award special items, abilities, and special powers.
   - The awarding of king can also be viewed as a reward for reaching the other side of the arena.
   - But to activate the special powers of the king, we have to introduce additional rules.

7. The king can move and capture both backwards and forwards across the board. All other rules still apply
   - The effect of having the king on the board is staggering in terms of what it does to the game. It induces a sense of urgency into both players and alters the strategy. One simple addition has modified the game and added a greater challenge. This is exactly what games and game play is all about.
   - Video games can induce urgency on varied levels and in different ways.
   - Quake/Halo

    - Adrenaline pumping, fast and furious action, and a state of urgency is evoked 90% of the time especially if you have a large multiplayer game in progress.
- Different games provoke people in different ways. Checkers may seem dull as a rainy day to someone who has experienced the rush of Quake.
- However, there are many in the world who play checkers, take it very seriously and can get their hear racing from it.

8. Checkers is won when a player captures all the opponent's pieces, or renders him immobile, forcing surrender.

Rules and Boundaries police the game experience, enabling it to take place in a controlled well-defined environment. They define how the game begins, how the game ends, and what takes place in between, like a beautifully crafted story.

This is game play in its most basic form, but computer and video games can be much more than this.

Another Very important element to game play is feedback.

Feedback is exactly what the word implies. When a player inputs to the game, the game should provide feedback to the player. There are two types of feedback explicit and implicit.

- Explicit is activated when the player performs an action
- Implicit is ever present informatively like a sign or poster or a path.

	Feedback		
Type	Description	Explicit	Implicit
Visual Feedback	This is what the player is seeing on the screen both directly and indirectly	√	√
Audio Feedback	What the player is hearing both directly and indirection	√	√
Action Feedback	A reaction from player's actions could be coupled with audio and video	√	
NPC Feedback	Feedback from non-controlled characters that populate the game world	√	√
Accumulative Feedback	To require progression as the player moves through the game		√
Emotional Feedback	This Feedback provokes an emotion in the player.	√	√
Fulfillment Feedback	Feedback that stimulates a sense of fulfillment very important to recognize this need	√	√
Informative Feedback	Feeding information to the player. A context sensitive control mechanism does this	√	√

Action > Reaction > Feedback or Cause and Effect

Feedback should be embedded in game play, not simply used as visual and audio effects.

Tetris as the blocks stack higher, the music changes creating a sense of panic and urgency, which then ultimately evokes an emotional response. This also tells the player that something needs to be done to avoid inevitable doom creating panic.

Should ALWAYS strive to achieve an emotional feedback response.

Core Genres

- Sports
- Adventure
- Action
- Simulation
- Strategy
- Puzzle
- Role Play
- Management
- Uncategorized

Sports Components

- Competition
- Performance Challenges
- Quick Reflexes

Adventure Components

- Puzzle Solving Challenges
- Great deal of thought process generally required from player
- Interactive story that is tied to the challenges and revealed as challenges are overcome
- Multi-threaded plot to draw the player through the game
- An adventure, a journey from one location to another
- A central protagonist

RPG Components

- Character Creation
- Character Evolution
- Character Class, Attributes, Skills
- Inventory Management
- Melee
- Quests
- Interactive Story

- Adventure

RTS Components

- Harvesting Resources
- Building a Community (have boss or bosses)
- Spawning units with varying capabilities
- Strategic Attacks
- Destroying Opponents

Action Components

- Action
- Quick reflex movements
- Little thought process required
- Pick up and play
- It doesn't have a steep learning curve

Simulation Components

- Real physics
- Real vehicles
- Steep learning curve

Genre Consideration

- Decide in which genre your game will exist.
- What game play components and challenges do you have in your game that identifies its genre? List them.
- Are there elements overlapping from other genres that slot it into a sub-genre? Be clear what they are.

Sub-genre

RTS

- "God-games"
    - God's eye view sees the whole field at once
    - Involve caring for your people
    - Feeding them (parental) gathering food
    - Curing diseases and generally shield them from many opposing influences within the game
    - Shift from standard RTS by shifting emphasis to the care and maintenance of your unites in order to keep them alive long enough to complete the objective.
- Sports
    - Extreme Sports
        - Skating and snowboarding put players in extreme conditions involving an element of danger
        - Potentially fatal in the real world
        - Flexible and modifiable

    - Action Racing
        - Involves weapons and abilities to use to give the player an advantage over his opponent.
    - Fighting
        - Street fighter, Mortal Kombat, Tekken.

Action Games

Pure action games usually have little in the way of interactive stories and are often mission based. There are a series of challenges and if completed successfully, the game will allow the player to progress.

- Objective: Blow up the base
- Challenges
    - Sneak across the river to the facility without being detected (stealth)
    - Kill the guards patrolling outer perimeter (action)
    - Destroy security cameras (action)
    - Find the back entrance and make your way to the basement without being spotted (stealth)
    - Place explosives in a calculated position (stealth)
    - Activate explosive timer (timer)
    - Get out before explosive detonates (time-based action)
    - Victory equals successful escape
    - Mission complete

The challenges in action games do not require the player to think too much but do require the player to perform special functions and complete objectives by giving clear instructions for the challenges.

Types of Games

- Shoot ‘em up
    - Space War – 1962
    - Space Invaders – 1978
        - Both shoot up
    - Defender – 1980
    - R-Type – 1987
        - Side scrolling

- Platform Games
    - Engaging Character
    - Story involving the theft of something sacred to the player character by an evil dictator
    - An extended quest to return the player’s character’s world to normal
    - A world so fraught with danger it is surprising it had indigenous life to begin with
    - Examples: Mario, Sonic, Zelda

- Strategy Games (RTS)
    - Places player in command of a large number of characters and resources
    - To succeed, a player must manage
        - The collection and consumptions of resources
        - Develop the skills of the population
        - Acquire technology
        - Manage populations disposition
        - Populations control within the game and increase it
        - Resist the actions of the opponent AI as other players trying to do the same with their faction
    - Provide player with a "God's eye view"
        - Can see the whole playing field and move around it
        - Zoom into specific parts
        - Quickly moving around the map and identifying trouble spots is a vital part of the game
    - Technology tree
        - Player must move through a set order to get better equipment and skills for the players people
        - Example: A historical game will have to pass through a level of bronze working technology before the player can start working with iron.
    - Military RTS
        - Take a stone age and move to the Iron Age (Age of Empires)
        - Total War: recreate historically accurate battles from ancient to medieval history
        - Renowned for their accuracy in setting and visuals and often used in historical documentary films
    - Fantasy War
        - Warcraft and Starcraft
            - Successful because easy to learn, and good visuals
    - Puzzle Games
        - Most widely played due to the fact that so many devices come with some form of puzzle game. (Easily accessible)
        - Tetris (1985)
        - Maze Games
            - Sokoban achieved goals by pushing blocks around the more complex the level god the more defiant order of moves where regained
            - Marble Madness
            - PSP: Mercury
        - First person shooter
            - Wolfenstein 3D
            - Doom
            - Difference between Doom/Quake style and Half-Life?

Game structure (linear vs. sand box)

- What is game structure?
    - Architecture of the game; how it all fits together, how the levels are laid out, how high objectives are staged.
- Linear
    - Set sequence of events, little or no variation every time you play.
    - Designers know where the player will be so all the design, art, and code efforts can go into those areas.
    - Higher production values will look better and should be better paced and choreographed.
    - Players can usually wander around areas already cleared but can't do must else unless the set path is followed

If a lot of the linear games available were turned into free roaming, mission=based, open-ended structure, the gamers would either be fare more expensive and more difficult to make or it would have to compromise in either quality or quantity of the experiences.

Linear: everything happens in a set sequence: Level one, Level 2, Level 3

Non-linear: no set sequence although they're rare usually about restrictions. Usually mini games within the longer game but not always an order to follow. (Grand Theft Auto series)