Gameplay and Examples

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Approval

This is to certify that the Design Research Seminar (DRS)report titled:

Gameplay and Examples

by **Maddu Shravan Murali** is approved for the partial fulfillment of his Masters of Design degree in Industrial Design.

Signature of DRS guide :

Declaration

I hereby declare that the report entitled Gameplay and Examples submitted by me to Industrial Design Centre, IIT Bombay in partial fulfillment of the requirement for the award of the degree of Masters of Design is a record of bonafide work carried out by me under the guidance of Prof. Uday Athavankar. I further declare that the work reported in this project has not been submitted and will not be submitted , either in part or in full, for the award of any other degree or diploma in this institute or in any institute or university.

Signature:

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I would like to thank Prof Uday Athavankar for his faith in me to carry out this report.

I would also like to acknowledge Mr. Aki Jarvinen, the author of the thesis Games without Frontier.

Finally, this report would not have been possible without the gaming spirit of the people I interviewed.

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Abstract

The thesis *Games without Frontiers*, by Mr. Aki Jarvinen was given to me by Prof. Uday Athavankar. In this report I have tried to analyse traditional Indian games by applying the analysis template proposed by Mr. Aki Jarvinen.

This report is in 2 parts.

In the first part I tried to elaborate, to the best of my understanding, the definitions of each component of the analysis template.

In the 2nd part I tried to analyse games which were a resultant of numerous interviews conducted by me at different regions like West Bengal, Andhra Pradesh, Tamil Nadu and Jammu.

The objective of this report is to find if the *Library of Mechanics* proposed by Mr. Aki Jarvinen is sufficient for Indian Games.

Game Play

Game World

Consists of

Once the player enters the game world, player never questions the rules of the game world and simply accepts them as valid. The rules are valid only in the game world and are never mapped to the real world. So they need not look for logical explanations in the real world. Game world consists of Game Infrastructure (Hardware), Willing Players (Primary users) and Willing spectators (Secondary users).

For example: (In chess queen is more mobile, powerful than the king! The knight goes two and a half squares!)

GAME WORLD

GAME DYNM.

GAME MECH.

Game Dynamics

Game dynamics emerges in the way the players use infrastructure and rules. But, no two games played are ever identical.

In spite of the identical infrastructure and game mechanics, the change in the player or their behaviour or even the changes in the context alters what unfolds in the game.

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Game Mechanics

Game World (system behavior)

Game Dynamics (player behavior)
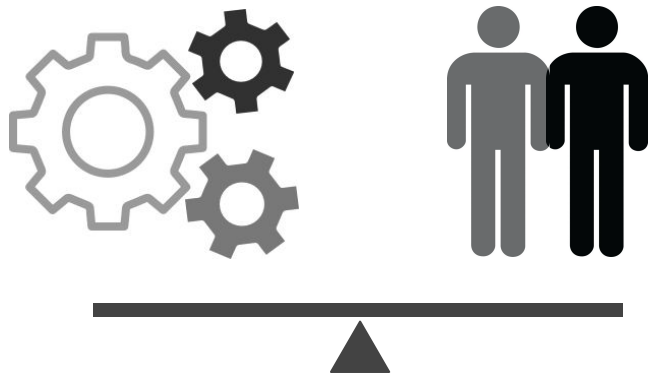
It can be defined as the number of possible actions a player can do during a game state.

For example: The mechanic 'trading' simply means that during the game the players have a possibility to trade.

The difference between a rule and a mechanic is that there cannot be a mechanic without rules. For example: Ludo *(Move an element of self)*.

The Connection!

Game mechanics influences Game dynamics.

For example:

Trading ➡ Interaction b/w players ➡ Encourage conversations

Game Mechanics

Library of Game Mechanics:

- Accelerating/Decelerating
- Aiming And Shooting
- Allocating
- Arranging
- Attacking
- Defending
- Bidding
- Browsing
- Building
- Buying/Selling
- Catching
- Choosing
- Composing
- Conquering
- Contracting
- Controlling
- Conversing
- Discarding
- Enclosing
- Expressing
- Herding
- Information Seeking
- Jumping
- Maneuvering
- Motion
- Moving
- Operating
- Performing
- Placing
- Point To Point Movement
- Powering
- Sequencing
- Sprinting
- Slowing
- Story Telling
- Submitting
- Substituting
- Taking
- Trading
- Transforming
- Upgrading/Downgrading
- Voting

Senario: When listening to commentary while watching any game, the above words are frequently used. However, it is to be remembered that the Aki Jarvinen has specifically defined these mechanics as '*the number of possible actions a player can do during a game state*'.

The commentator generally is referring to the player/s intentions at that moment. Thus setting a classic example of *Game Rhetoric* which is not included in this document.

A detailed definition and use of mechanic, some game examples and possible additional notes, like common sub mechanics, are given on pg no. 385 of *Games without frontiers* thesis.

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Categories of Game Mechanics are:

Primary mechanics - What a player does in the game state during a standard turn/sequence.

Sub-mechanics - Instrumental to perform the primary mechanics/actions available due to primary mechanics.

Modifier mechanics - What the player does in a specific game state which occurs on some condition.

For example: In the game of Badminton:

Primary mech.- *Aiming and shooting* the ball away from the opponent.

Sub-mech.- *Maneuver* position to make the shot easy.

Modifier mech.- To score consecutive points in duce.

Core Mechanics
Primary Mechanics
+
Sub Mechanics

Goal hierarchy:

Global Goal - The overall highest order goal of the game.

Glocal Goal - Goal of core mechanics.

Local Goal - Goals related to modifier mechanics which may be instrumental to various order goals.

For example: In the game of Table Tennis:

Global Goal - Win 3 out of 5 sets

Glocal Goal - Accumulate points to win the set by using core mechanics.

Local Goal - When deuce happens, score two consecutive points.

Analysis Template:

The following template is used to understand the mechanics and goals of a game.
For example: Tetris

	Core (global) game mechanics			Local game mechanics	
GLOBAL Goal	**Primary mechanic**	**Submec-hanic(s)**	**GLOCAL Goal**	**Modifier mechanics**	**LOCAL goal**
Do not let a block touch the upper border of the game environment in order for play to continue.	moving the block	rotating the block	Find best position for the block, i.e. produce combinations of 8 in order to score points.	Dragging the block down; a 'shortcut' mechanic.	Accelerates moving a block in case there is vertical space below.

A screenshot of Analysis template
Source: Games Beyond frontiers, Pg: 272
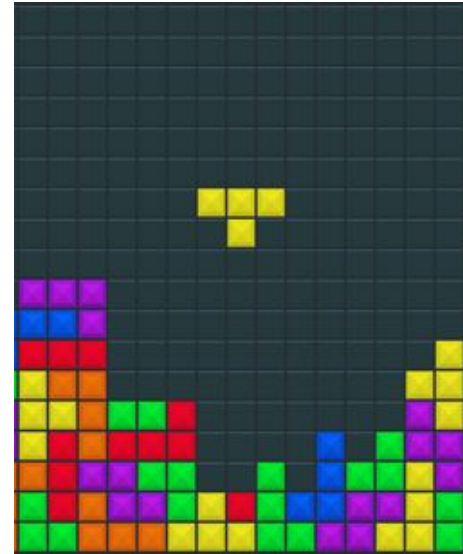
A screenshot of Tetris
Source: www.microsoft.com

Some Traditional Indian Games:

Aligulimane/Pallanguzhi:

A traditional ancient game played in South India especially in Tamil Nadu . States \ countries like Karnataka (*Ali guli mane*), Andhra Pradesh (*Vamana guntalu*), Kerala (*Kuzhipara*), Sri Lanka and Malaysia also play other variants of this game.

Infrastructure: A rectangular soft wood box with 2 rows of 7 shallow pits in each row, and small units like seeds.

Number of players: 2

Source: Author

There are several variants of this game. I played a game which involves 70 seeds

Chaupar:

The board is shaped like a cross. A player's pieces move around the board based upon a throw of 2 dice, previously made of ivory as shown below, or six or seven cowrie shells, indicating the number of spaces to move.

Infrastructure: A symmetrical cross board made of cloth, a set of 4 pegs of similar colour X 4 and 2 dice

Number of players: 2-4

Source: Author

Coury Game:

A traditional ancient game played in coastal India, goes by many names like *Kadi* or *Kaudi.* The players have to throw all four *cowrie* shells on the floor and are scored based on the orientation of the cowries shells.

Infrastructure: 4 Cowry Shells

Number of players: 2 or more

Scores for Cowrie Throws

Turn Ends

Score: 1 per strike

Turn Ends

Score: 4 for each cowrie

Score is 4
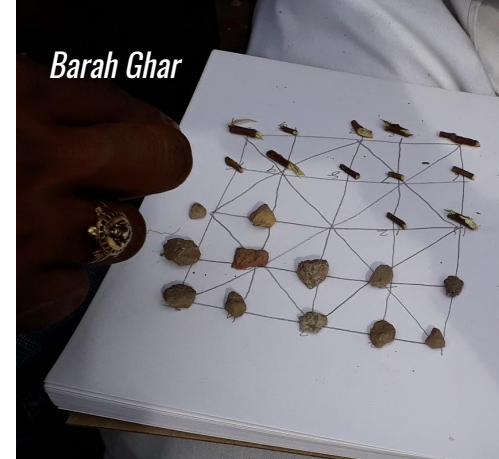
Source: Author

Barah Ghar:

The kid people demonstrating me how *Barah Ghar* is played hail from Jammu. Similar mechanics is observed in different games but with the layouts changed like *Chathurvimshathi Koshtaka*.

Infrastructure: 12 small elements of the same kind X 2 and a markable surface.

Number of players: 2

Chathurvims-hathi Koshtaka

Source: Author

Barah Ghar
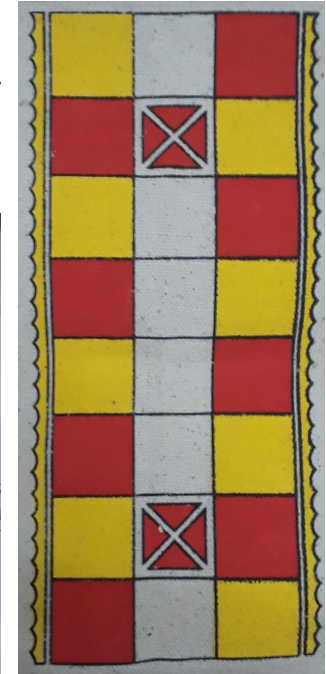
Indian Games in the Analysis Template: Conclusion

Sl. No.	Game	Game type	GOAL TYPE	CORE MECHANICS			GOAL TYPE		LOCAL MECH.		GOAL TYPE
			Global (highest order goal)	Uncertainity factor	Primary mech.		Sub-mech.	Uncertainity factor	Glocal (goal of core mech.)		Uncertainity factor	Modifier mech.	Local goal

Sl. No.	Game	Game type	Global (highest order goal)	Uncertainity factor	Primary mech.		Sub-mech.	Uncertainity factor	Glocal (goal of core mech.)		Uncertainity factor	Modifier mech.	Local goal
1	Alagulimane/Pallaguzhi	Board game	Discard opponents bowls	Quantitative reasoning	Choosing		Taking		Take more seeds than your opponent	&		(Kanu!) Taking	Take more seeds than your opponent
2	Ludo	Board game	Race: Get all 4 pegs to Home first!	Quantitative reasoning	Point to point movement	&	Operating	Luck	Get high numbers in dice throw	&	Spacial reasoning	Point to point movement	Reach safe zones, eliminate opponents peg, etc
3	Barah ghar	Board game	Survive	Spacial reasoning	Point to point movement		Taking	Spacial reasoning	Discard opponents element		Spacial reasoning	Point to point movement	Repitition
4	Souri	Board game	Accumulate points	Hand-eye coordination	Aiming and shooting	&	Operating	Hand dexterity	Managable arrangement	&	Hand-eye coordination	Taking	Making it difficut for opponet to win
5	Ginnidi ginnidi	Outdoor	Touch the intruding players	Speed of limb Movement	Touching*	&	Manoevering	Spacial reasoning	Stop intruding players from hitting				
6	Astha Chamma	Board Game	Race: Get all 4 pegs to Home first!	Quantitative reasoning	Point to point movement	&	Operating	Luck	Get high numbers in dice throw	&	Spacial reasoning	Point to point movement	Eliminate opponents peg
7	Rumaal Aata	Outdoor	Decieve and race		Placing	&	Manoevering	Speed of limb Movement	Perform the placing action discretely.				
8	Gilli Danda (Peg and Stick; Hindi)	Outdoor	To hit the gilli away from opposing team	Multi limb coordination	Controlling	&	Motion	Multi limb coordination	To hit the gilli away from opposing team				
9	Chain Chain	Outdoor	To touch evading players and form a large chain to catch other evading players	Speed of limb Movement	Touching*	&	Manoevering	Speed of limb Movement	To touch evading players				
10	Esaka aata (Sand Game; Telugu)	Indoor Game		Luck	Guessing*		Taking		To take the hidden element from the hump of sand				
11	Gajulu aata (bangle game; Telugu)	Indoor Game	To accumulate 4 element of the same kind	Luck	Taking	&	Discarding	Visual reasoning	To discard the odd one out				
12	Kumer Danga (Crocodile and the bank; Bengali)	Outdoor	Touch the intruding players	Speed of limb Movement	Touching*	&	Manoevering	Speed of limb Movement	To touch evading players				

* I was not able to find the mechanic in the Library of Mechanics of 'Games Beyond Frontiers'.

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