



GAMIFICATION OF EDUCATION

X
ग़लत
फॅमिली

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Galat Family
(Physical Card Game)

OBJECTIVE

- To develop a game activity which help children learn Language and Mathematics through self-motivation and enjoyable learning

Targeted Age Group

1st to 2nd standard children

Syllabus:

- focused syllabus includes learning *varnmala* and letter identification.
- Activity involves listening, speaking and reading skills
- Learning pronunciation of letters

Problem Areas

- Traditional methodology for teaching *hindi* is instructional oriented
- Content could involve more practical reference and application for children to relate
- Children are not motivated due to repetitiveness and lack of fun
- Coercion of instructions
- Evaluation system burdened children to score marks
- Regional language and dialects varies from Hindi
- Limited availability of fun activities related to Hindi



Explorations & Ideation:

- Several ideas were come up, games were divided into pre-online and post online game depending on requirement of skills to play
- *Akshar paheli* - game based on maze puzzle with Hindi letters to promote writing understanding
- Tap game - an outdoor game with involves calling of noun words
- can be played in Hindi and English
- Illustrated stories in rhyme fashion for learning *varnmala* and *swar*
- Racing game with *matras* and letters
- Tracing games for writing letters facilitated by iPads/smart phone apps
- Make a chain game - an outdoor game with a letter assigned to each player in which they have to make words by catching letters

- For a child seeing the alphabets for the first time, every script and scribble is a drawing.

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- It's through persistent teaching that they start associating an alphabet to a particular “drawing”



Akshar Dhundo

Objective

- Children should be able to identify *Hindi* letter
- They should also differentiate between correct and wrong letters
- They can play the game with little guidance of teacher
- Children should be able to pronounce letter correctly
- Learn how to associate letters in surrounding objects
- Familiarization with basic mathematical operation (addition and subtraction)

Structure And Contents:

- The game comprises of 52 set of hand cards corresponding to 52 letter from *hindi varnmala*
- Each set contains about 3 correct letters, 2 wrong version of the same letter, images associated with selected letter and a bonus cartoon character
- Each card is color coded, set wise on its back, to organize them in a set
- 52 large cards with correct letters for reference and for selecting letters during gameplay
- Difficulty level can be set by children themselves by adding more then one set at a time



The task is to quickly scan through the thrown cards in front and recognize the correct alphabet from the wrong ones .

- Competition in picking up the cards adds on the fun as well as improves the eye coordination and recalling power of the child.
- The child starts looking at the basic and unique characteristics of each alphabet and its corresponding typeface.

खेल के नियम

- समूह के छात्र से कोई एक छात्र शिक्षक का पात्र निभाएगा जिसे बड़ी पट्टीका के बीच से कोई एक पट्टीका उठानी है और उसे सभी सहभागी छात्रों को दिखाना है
- शिक्षक सभी कार्ड के पीछे भाग में जो भी आकृति हो पहले उस आकृति के सभी कार्ड को मिलाएगा जिससे उस समूह के सभी कार्ड बाकी समूह के
- कार्ड से पृथक हो जाएँगे
- माना कि वह आकृति 'क' अक्षर से मिलती है
- जब 'क' अक्षर के सभी कार्ड एक साथ मिल जाए तब शिक्षक उन सभी कार्ड को हवा में उपर फेंकेगा
- तब अन्य छात्रों को सही अक्षर के कार्ड को उठाना है (एक छात्र एक बार में अधिकतम दो कार्ड उठा सकता है)
- और जब शिक्षक बच्चों से अपने अपने कार्ड दिखाने कहेगा तब सभी छात्रों को अपने अपने कार्ड दिखाने होंगे
- जिसके दोनों कार्ड सही होंगे उस छात्र को २० अंक प्राप्त होंगे
- जिस छात्र को सही कार्ड के साथ कोई भी कार्टून आकृति मिलती है तो उसे सही कार्ड के १० अंक और कार्टून कार्ड के ५ अंक मिलते हैं
- यदि कोई छात्र दोनों कार्ड ग़लत उठाएगा तो उसे शून्य अंक प्राप्त होंगे
- इस प्रकार शिक्षक इस खेल का संचालन करेगा

Observations & Testing

- Prerequisite to play the game is children need to know letters
- Kids like to have a role play of teacher assigned to players
- Children were correcting each other
- They were engaged in picking cards and enjoying it
- They were engaged in play until they have learnt all the letters
- They were recollecting and associating objects from past learning and surroundings

Future Aspects & Scope

- The medium of game could be changed to digital interaction
- More cards could be added to a set for learning words and *matras*



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Subject : **HINDI**

Class : 1st & 2nd

Standard



OBJECTIVE

Our aim was to develop a game that showed them similar looking drawings and try focusing more on the intricacies of the script. Learning why and when a certain alphabet can be pronounced “aa” or “ka”

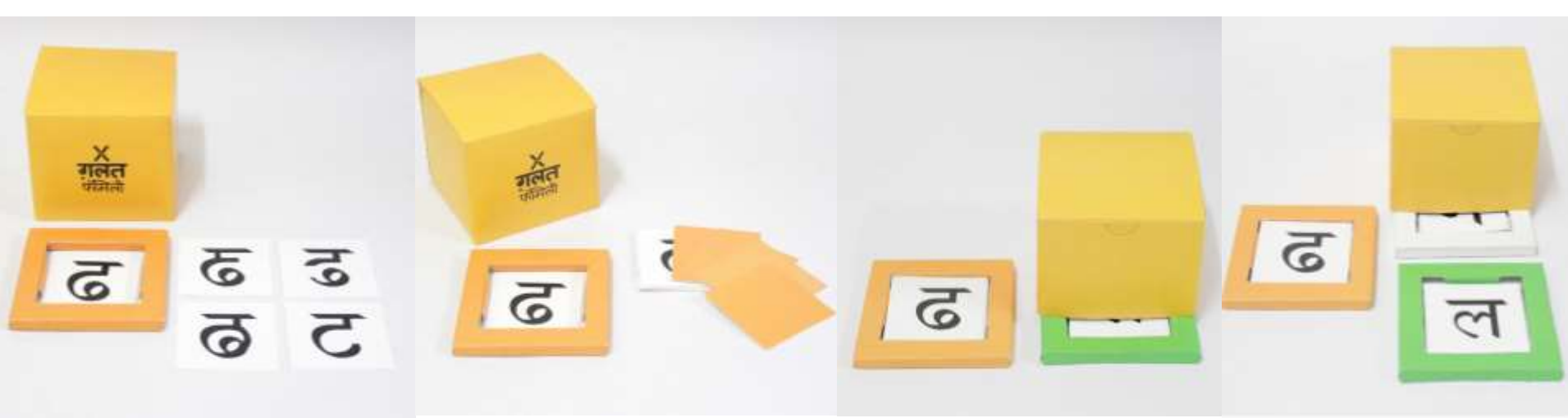


GAME PLAY

[PHYSICAL/OFFLINE]



- The ultimate goal of game is to collect correct letters as much she/he can.
- The player want to play the game for rewarding scores and fun interaction with playermates while they correct each other.
- They wait for their turn to play role of the teacher to conduct the game.





THEME AND STYLE :

The Game is card based which involves ,a role play and a racing game.

POSIBILITIES:

The game could be adapted to single or multiplayer online games.

offline possibilities are physical games without any artifacts also it can be card/ board game.



CONFIRGURATION [offline setup]

- The game comprises of 52 set of hand cards corresponding to 52 letter from hindi varnmala.
- Each set contains about 3 correct letters, 2 wrong version of the same letter, images associated with selected letter and a bonus cartoon character
- Each card is color coded, set wise on its back....





CONFIRGURATION [offline setup] cntd...

- To organize them in a set 52 large cards with correct letters for reference and for selecting letters during gameplay.
- Difficulty level can be set by children themselves by adding more then one set at a time.



GAME TESTING:

. It has been tested on children in physical form and the response was very energetic and enthusiastic.

The children started looking at the basic and unique characteristics of each alphabet and its corresponding typeface. Also we observed that each children would correct the other and this form of group interaction encouraged healthy learning. Learning through errors, learning from your peers, the children don't feel the burden of being taught in a small classroom.



SUBJECT: Hindi

CLASS: 3rd to 5th
standard

1 2 3 4 5 6 7 8 9

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OBJECTIVE:

- Understanding of making of words
- Vocabulary
- Placing of coordinates
- Matras



1 2 3 4 5 6 7 8 9

GAME PLAY:

game involves rolling of 2 dice at a time that shows position of co-ordinates on which pawns are placed.

Size of pawn determines the number of words and co-ordinates determines the number of letters in a word

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1 2 3 4 5 6 7 8 9

THEME:

It has an aquatic theme which is underwater fight game.

CONFIGURATION:

Game comprises of 2 grid boards

Aquatic characters as pawns with varying lengths

Tokens : Bullets, bomb, healing pill

Dice

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Hindi Varnmala chart with matras for reference

स्वर	अ	आ	इ	ई	उ	ऊ
	ऋ	ॠ	ऌ	ॡ	ऀ	ँ
व्यंजन	क	ख	ग	घ	ङ	
	च	छ	ज	झ	ञ	
	ट	ठ	ड	ढ	ण	
	त	थ	द	ध	न	
	प	फ	ब	भ	म	
	य	र	ल	व	श	
	स	ष	ह			
	क्ष	त्र	ज्ञ			

	।	ि	ी	ु	ू
a	aa	i	ii	u	uu
॑	॒	॑	॑		
ee	ai	oo	au		

Two play arenas which consists of a grid that acts as the coordinates for the position of their players in the battle

The image shows two 9x9 grids used for a Hindi Varnmala game. The left grid has columns labeled 9, 8, 7, 6, 5, 4, 3, 2, 1 and rows labeled क, ख, ग, घ, च, छ, ज, झ, ट. The right grid has columns labeled 1, 2, 3, 4, 5, 6, 7, 8, 9 and rows labeled क, ख, ग, घ, च, छ, ज, झ, ट. Both grids have a teal square on the left and right sides. The background features a decorative border with sea creatures.

कौन पासा फेकेंगा यह सुनिश्चित करने के लिए हम सिक्के को हवा में उछालेंगे



खेलने की प्रक्रिया

- सर्वप्रथम खेल आरंभ होने से पहले खिलाड़ी स्वयं को दो समूहों में विभाजित करे, तत्पश्चात अपने-अपने जलीय जंतुओं का विभाजन करे और उन जलीय जंतुओं को अपने अपने स्थान पर स्थापित करे
- समूह विभाजित होने के बाद हम सिक्का उछाल कर यह निर्धारित करते हैं कि कौन सा समूह पहले पास फेंकेगा
- यदि पासों में मान लीजिए, ५ संख्या आती है तब हमें अपने जलीय जंतुओं को X और ५ की वर्गाकृति में स्थापित करना है और प्रतिद्वंद्वी खिलाड़ी को जो भी बड़ी संख्या हो उतने अक्षर के उतने शब्द बनाने होंगे जितनी वर्गाकृति दूसरे खिलाड़ी का जलीय जंतु घेरता है
- यदि विरोधी खिलाड़ी यह शब्द १ मिनट की समय सीमा समाप्त होने के पूर्व बना लेता है तब उसे प्रतिद्वंद्वी के जलीय जंतुओं को मारने के विकल्प

- मिलते हैं जिसमें उसके पास हथियार स्वरूप बम , और गोलियाँ होती हैं
- यदि वह बम का प्रयोग करता है तब जलीय जन्तु का संपूर्ण विनाश हो जाता है और वह गोलीओ का प्रयोग करता है तब उसे बारी - बारी से मारना होगा
- अब पासो फेंकने की बारी विरोधी खिलाड़ी की आती है ओर वह पुनः यही प्रक्रिया दोहराएगा
- और अंत में जिसके भी सबसे ज्यादा जलीय जन्तु जीवित होंगे उसे विजेता मान लिया जाएगा
- विजेता का निर्धारण यह खेल ३ बार खेलने के उपरांत ही किया जा सकता है
- खेल के नियम
- यदि पासो में दो ६ एक साथ आते हैं तब 'मृतसंजीवनी' शक्ति मिलती है जिसके द्वारा हम अपने किसी भी जलीय जन्तु की पुनः जीवित कर सकते हैं



GAME PLAY [DIGITAL]

Core Mechanics

The task is to quickly scan through the flashing rotis in front of them and recognize the correct alphabet from the wrong ones.

The player keeps collecting points by trying to capture as many correct alphabets as possible in his food bowl.



**Individual
Player Screen**



PLAY MECHANICS



The player interacts with the game through simple drag and swipe mechanism.

This should feel as if something is about to escape your vicinity and you are trying to grab it to your side.

It should have an elastic band feel that if you don't grab and pull it to your side, it would retract back to the central position.



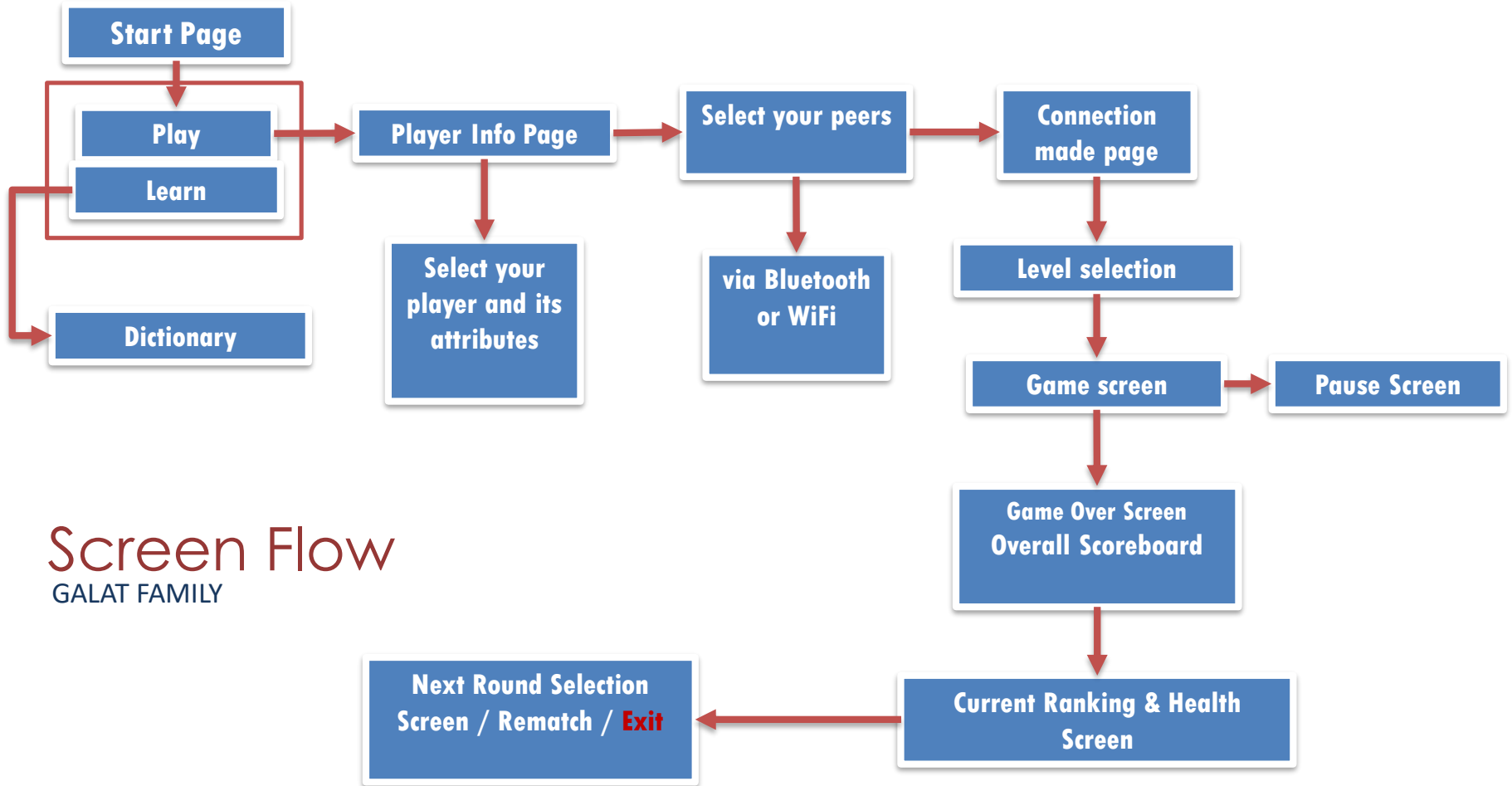
PROGRESSIVE MECHANICS

The ultimate goal of the player is to collect the most right alphabets than your competitors (AI/Players) and gain as many health points as possible.

The player keeps gaining health points for every correct move and that helps him to grow and evolve his character in the game.

He gains bonus points like “barking power, leaping jump” for exception performance in a game.

These powers will be required in mini matches after each season that adds variability in the overall game score.



Screen Flow

GALAT FAMILY







Thus swapping of wrong/right alphabets happen among the connected tablets



Concept of Half Letters



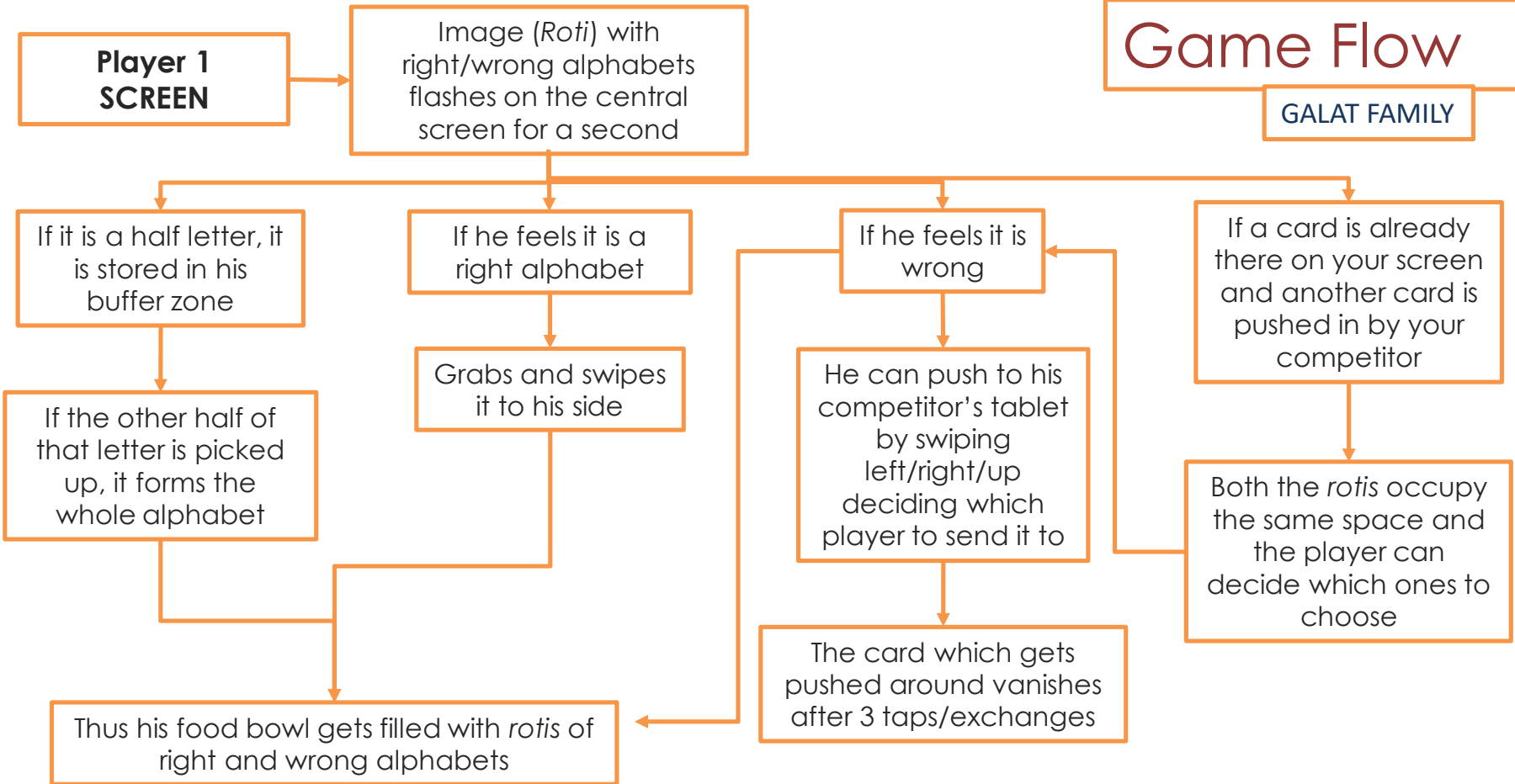
The player on noticing a half letter that came to his screen, he may use up the rest half of the letter from the buffer zone and thus form a complete alphabet



Thus a complete alphabet is formed and the player can now drag and collect it to his side

Game Flow

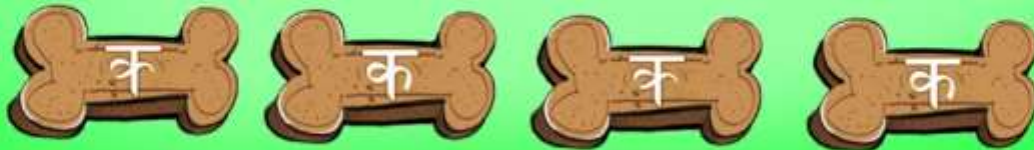
GALAT FAMILY



Scoring System in the Game

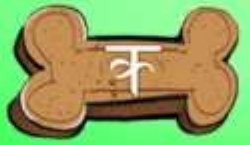


चिंद्



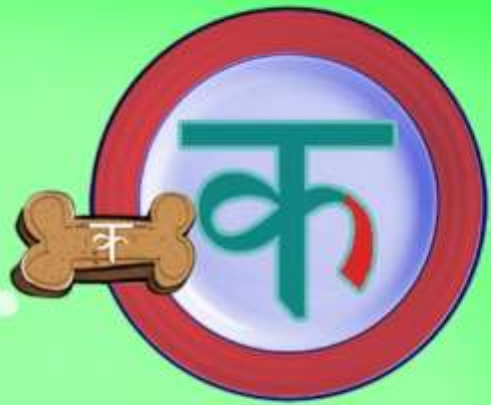


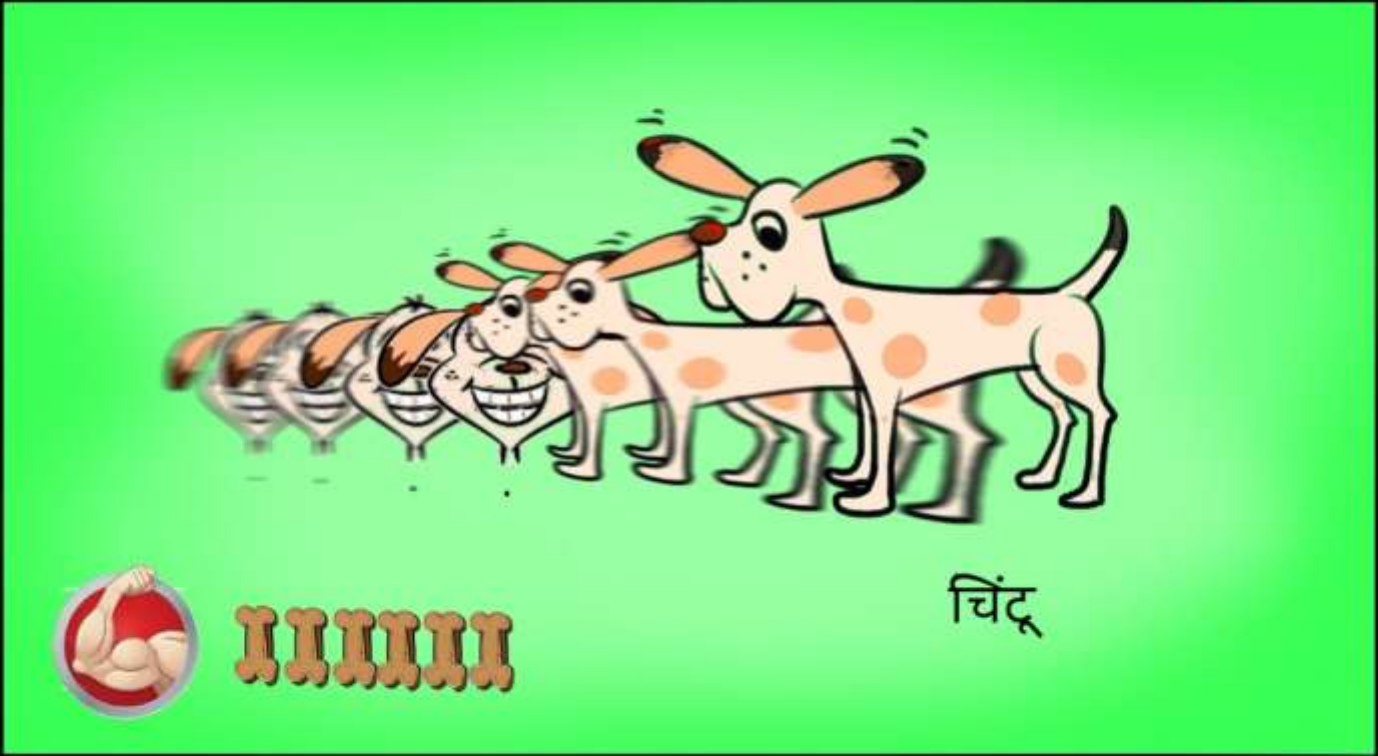
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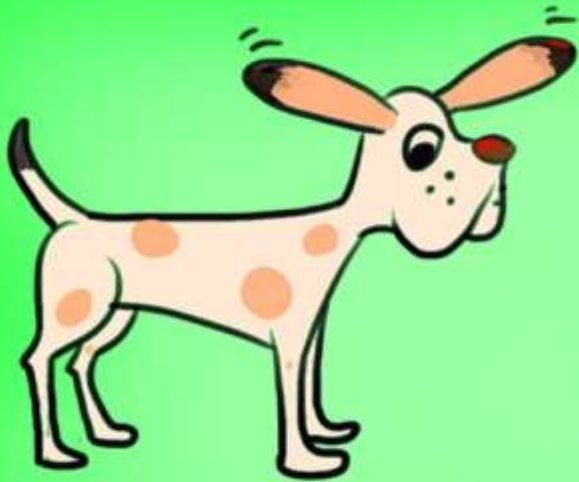
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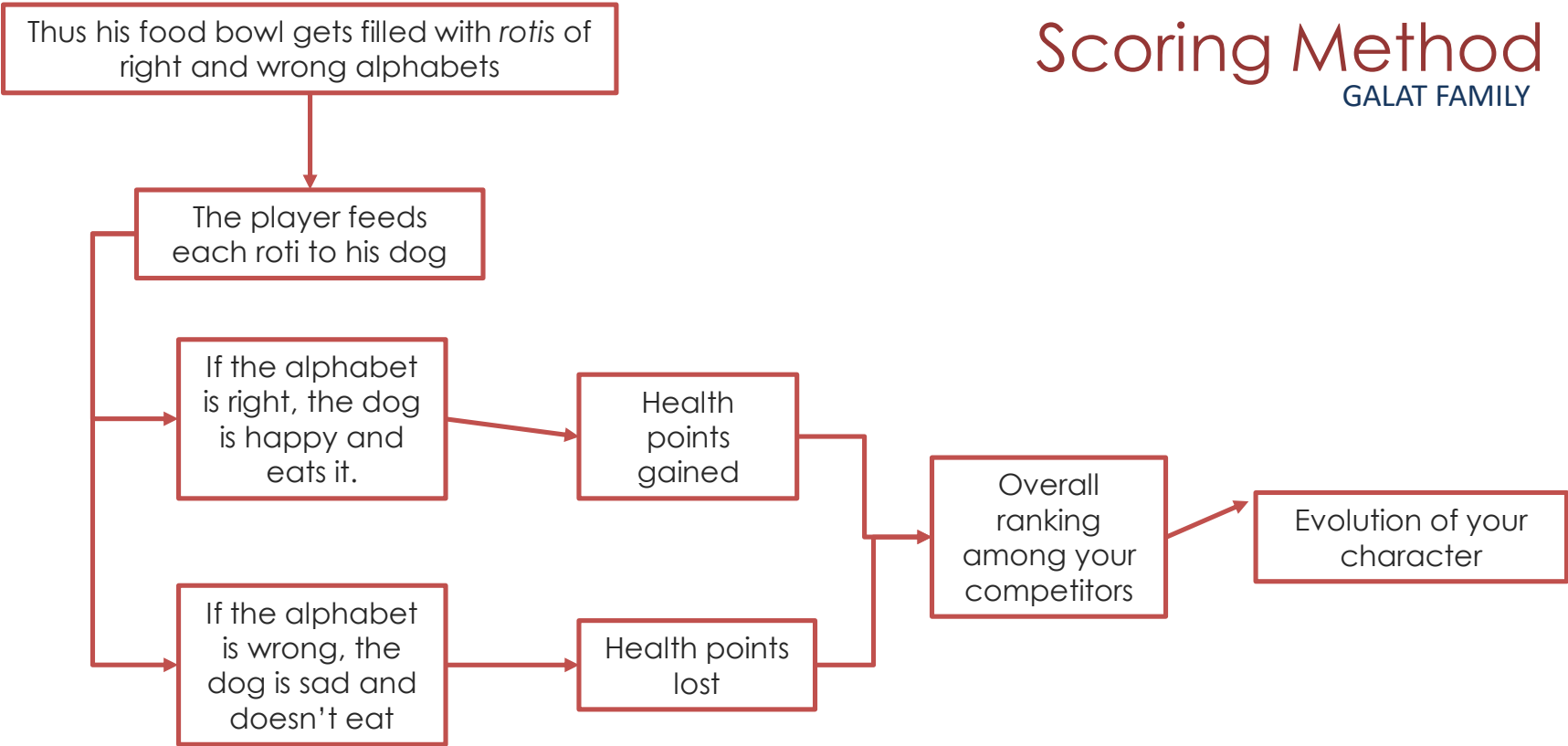


Overall Score



Scoring Method

GALAT FAMILY



धन्यवाद !