

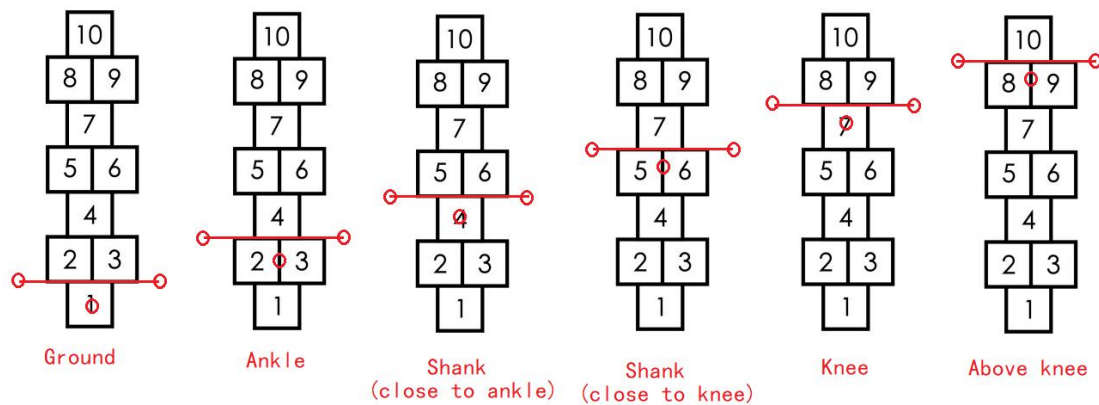
2019 Assignment 1: Hopscotch  
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1. What make Hopscotch a good game?
  - 1) Easy mechanisms. Easy to learn.
  - 2) Little prop requirements. Only with a chalk, some tapes or even stones can people play this game.
  - 3) It contains physical exercise that is good for children's growth and the development of balance.
  - 4) Good for multi people playing. Fun and good for sociality.
2. Some problems with the game.
  - 1) Need proper space to play.
  - 2) Usually leave drawings to the ground after playing.
  - 3) Too easy/little freedom to play.
3. Brainstorm ideas of Hopscotch.
  - 1) Play with fingers.
  - 2) One player designs the grid and the other jumps.
  - 3) Shout out some words (numbers, names of magical creatures...) while playing.
  - 4) Play on a trampoline.
  - 5) Expand the grid to a big complete "map" with virtual location settings.
  - 6) Two feet go to different position independently.
  - 7) Play in a swimming pool.
  - 8) Play with mirrors, reflecting sunlight to grids on a wall.
  - 9) Train animals (dogs, insects...) to play it.
  - 10) Throw sandbags into grids.
  - 11) Jump in circles instead of cube shapes.
  - 12) The player carries another person while playing.
  - 13) Not allow moving arms while playing.
  - 14) Play with eyes covered.
  - 15) Play in the snow.
  - 16) Jump on rhythm.
  - 17) Digital Hopscotch.
  - 18) Extend grids' amount (to maybe hundreds) and then when a player jumps on a grid, other players can't jump on it anymore.
  - 19) Real-human Hopscotch chess game.
  - 20) Hopscotch with high-steels.
  - 21) Turn-based battle game in Hopscotch.
  - 22) Give each grid an emotion/action, everybody on the grid has to role-playing act.
  - 23) Colorful grids.
  - 24) Multiple players jump at the same time, competing for the speed.
  - 25) Target-like grids, count scores according to the accuracy.
  - 26) 3D Hopscotch with climbing movement.
  - 27) Play on ice.
  - 28) Hopscotch that players step on cross nodes rather than grid centers.
  - 29) Rope-made grids, lift in half-air to jump over.
  - 30) Food Hopscotch (on a table), eating the food in grids.
  - 31) Drawing Hopscotch on paper, players need to fill in grids with drawings.
  - 32) Color add-subtract in grids.
  - 33) Digital Hopscotch with text command executed.
  - 34) Use real items (sticks, cloths, etc.) to make grids, and build new grids with the material of old grids.
  - 35) Unstopped singing songs while playing.
  - 36) Play on sands.
  - 37) Two players play at the same time, avoiding any physical touch to each other.
  - 38) Randomly set the target grid to go to, instead of always going to the end.
  - 39) Play in the night, using lighting material (like light sticks) as grids.

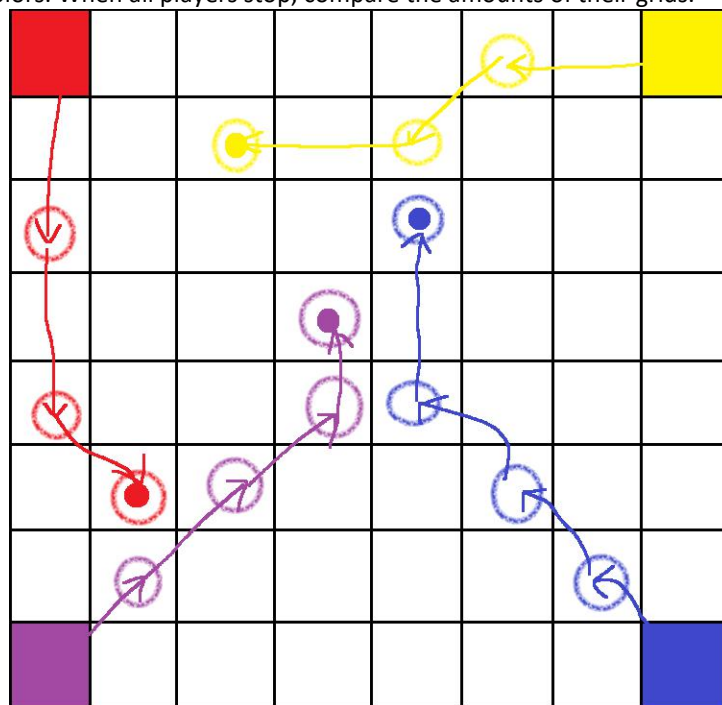
- 40) Use both feet and hands to play.
- 41) Link grids into a circle.
- 42) Add "trap grids" that will suspend the player for one turn.
- 43) Gradually increase/decrease the size of grids.
- 44) Children draw Hopscotch grids on parents' stomach.
- 45) Players exchange positions at some stages.
- 46) Single-foot Hopscotch. Not allow both feet to touch the ground at the same time.
- 47) Pinball Hopscotch.
- 48) Fix the gestures of some body parts (left/right arm, head, shoulders...) by some rules (like randomly generated for each grid)
- 49) Hopscotch in flower-made grids on Spring field.
- 50) Obstacle (like tree twigs) on the way.

#### 4. New Hopscotch versions.

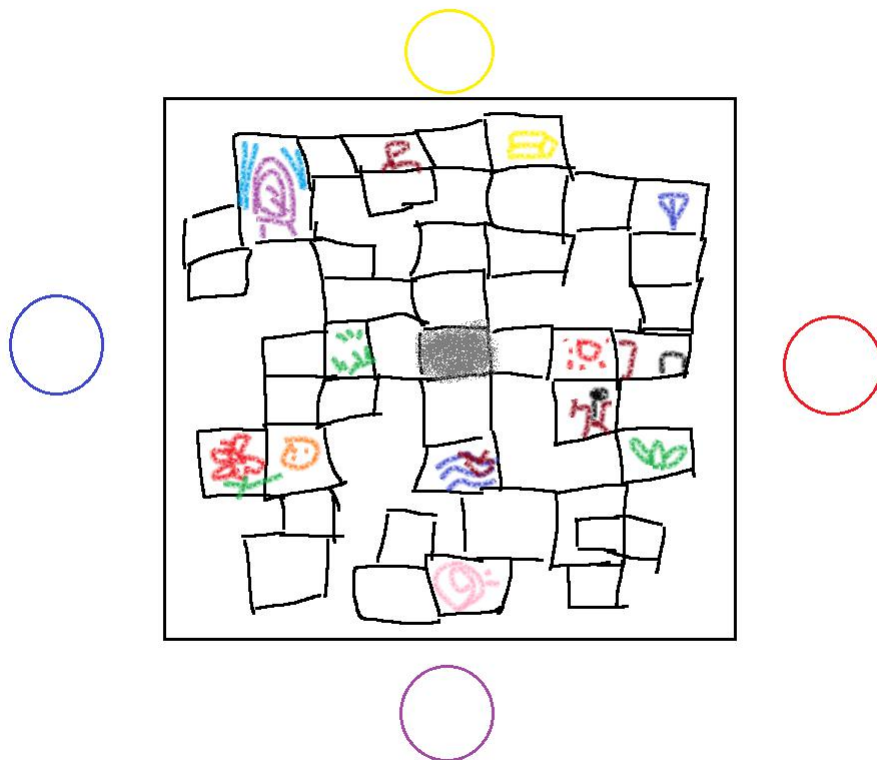
1) Add an elastic band to the game. While one player is playing, other two players hold the elastic band in front of the player. The player must jump over the elastic band to reach the next grid, or he fails. The height of the elastic band will increase with the game progress.



2) Grid a large ground. Four players originally stand at the four corners of the ground, with one color chalk in their hand (four colors). Once the game starts, the players quickly jump to other grids and draw a circle in the new grid with their chalks. Nobody can step on grids that have been drawn by other people's colors. When all players stop, compare the amounts of their grids.



3) 2~4 players sit around a large white paper with all-color crayons in their hands. Using these crayons they draw the top-down layout of their "homes" and whatever they want each room to have in, from the center of the paper to edges. Then they control their virtual characters to "visit" each other's "home" and do role-play acting.



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#### 5. Final chosen idea: Hopscotch on Paper (HoP)

Hopscotch on Paper is a game aimed at young children, using paper and crayons only, designed to encourage children's imagination, creation and mutual understanding, and leave precious memories to their future.

When the game starts, 2~4 players sit around a large piece of white paper. Each of them should have access to colorful crayons or pencils.

An original grid (room) is drawn at the center of the paper. After the game starts, each child should draw more rooms in the direction from the center room to the paper's edges. Each room drawn need to follow:

- a. It is in the shape of a polygon with 3~5 edges.
- b. One of its edges is attached to the center room or an old room drawn by the player. A door needs to be marked between the two rooms.
- c. The room cannot cover other existing rooms. Attachment of edges is allowed.
- d. The room cannot extend outside of the paper.

e. The room's polygon shape is drawn in color black.

f. The room needs to be filled with details (drawn in its shape use any colors) before drawing the next room.

In this way, players design and build their "homes". Once a player finishes, he can control his virtual "character" (can be represented by anything, like a stone or a model) to move from the center room, into other people's "homes" to explore and do things around, like petting others' dogs, or (with the other's agreement) building a new door on the mutual wall of his room and the other's room, to make the two homes connected.

## 6. First playtesting

Playtesters: Yidi Zhu, Tianyi Zhao, Lotus Li

Game time: 45 mins



We drew in very different styles. I (Lotus) simply drew a house, while Tianyi started to draw crazy things like airport, portal and hot girls. Yidi is half-half, keeping the house's living function, while adding in fun design like the underwater tunnel. While drawing we talked to ourselves and each other all the time, and each of us was influenced by others. For several times we thought others' design was good and copied it to our houses. The two boys quickly went into a competitive relationship. They drew weapon storages and (jokingly) threatened each other.

After drawing we walked into others' houses. It is hard to distinguish most of our room details, and we were asking "what is ..." all the time, and quickly the boys began to create dramatic events (sometimes by breaking things). Because our characters were mainly separate on the map, we were not able to interact with other characters, but mostly by oral communication in reality.

## 7. Analysis and refinement

According to my observation during the game time and the feedback I received, Hopscotch on Paper (HoP) has:

### 1) Good things

a) For young children it is really fun, with much to imagine, define, communicate and explore.

b) It is convenient to play. Only need paper, color pencils/crayons and/or an eraser.

c) It is good for players to know each other and develop the friendship.

d) The picture can be stored for the future as a memory.

e) It is good for players to develop imagination ability.

f) Children in-game don't always follow rules. Breaking rules in this game don't lead to serious consequences.

### 2) Bad things

a) Too much freedom may confuse the players, not know what to draw.

b) Characters not easy to communicate in game, because they don't usually stay in the same house, which makes role-play interaction awkward.

### 3) Improvements

b) Each player can freely interpret the items and make environmental events in his house (e.g., earthquake...). This encourages players to join his visitors to make stories.

d) After the game, each player signs his name beside his house, and choose one favorite room from others' houses, putting his "favorite mark" (like a shape of heart with his initials) on it. This is to grant achievements to players.

Game time: 30 mins



Other modifications to the game rules worked as they were assumed, making positive effects. Especially the self-interpreting role-play makes interesting stories and added fun to the game.

2) Usually leave drawings to the ground after playing: HoP uses paper instead of the ground. protect the ground's Cleanness, but also store the memory of gaming.

But, on the other hand, HoP erases some of the original Hopscotch's advantages. Hopscotch is a good physical exercise, while HoP is mental. It is too different from the original Hopscotch to compare with it.