Game Design Fundamentals

Decisions and Iterations made in Magic Portion

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I. Dice Rules

i. Color Rule

The initial idea for color rule was to let color of dice means differently for the 2 players. The red player counts red dice as full value while blue dice as half value. For example, if the red player rolls blue 6, it counts as 3. However, calculating the decimal numbers is painful when the red player rolls blue odd numbers.

ii. Odd Even Rule

The solution for the color rule was to have only even number counts. However, after observing the first and second play test, I found out that players' interests dropped by seeing rolling a lot of useless odd number points. Putting stickers to cover the points still don't solve the full problem while the major issue was the fact that 1/2 of times people were rolling useless dice. This also made strategies in this game had lesser affect on winning the opponent. Therefore, this rule and color rule were totally discarded.

iii. Distribution Rule

In the first version of the game, the players do not have the ability to distribute any of the dice. Every character got 2 dice per round. Distribution rule was made because one's player comment of wishing to distribute the dice. This rule was proved to be good decision because now the players care more about the different attributes and position on the map.

The amount of distributed dice was changed. The players each got 10 dice in setup phase and 5 dice in recovery phase. The purpose was to let the player saved and split the dice for later rounds usage. However, this was not the case, one player used all ten dice on one character and immediately killed a character.

The solution for this problem was to calculate attacks and defense differently. In previous version, the points (+1 to +3) were added on the dice rolled points. Those numbers were too small to affect the result of battles. Each die has average 3.5 points, in a battle that players usually use more than 3 dice to battle, those 1 attack point don't count much in 3x 3.5 = 10.5 HP point attack. Therefore, why not make the attack points and defense points into the default dice that a character has? This also help ties the character's image better, so that in every round every character feels like that character. I ended up distributing 5 dice at recovery phase (including 1st round), where each character can get average 1-2 dice per round.

II. Characters

i. Turn Order

The order of the moving sequence was a big issue. In original rules, the players who moved first got the initiative of attacking first. However, during play tests I found out that the player who moves last can see the move of the first player thus change their mind in moving different directions. Therefore, attacking first becomes not as an advantage for players to use their dice to move. The solution was to add turn order to characters based on their image.

The way of choosing the 3 characters had changed because now the

moving and attack sequence is fixed. Both randomly distributed 3 characters or randomly distribute 4 characters than choose 3 from them have a problem: There is case that player A has 3 faster characters, and B has 3 slower characters. This is cause the issue of unbalance because a character could die because 3 characters are attacking it. Therefore, the simple solution is to let players take turn to pick their 3 characters.

ii. Balance

Balance was one of the major issue of my game. Turning the attack points (+1 to +3) into the amount of extra attack dice did help the game more balanced. And this is the final character table for checking normal ATK and DEF to see if a character behaves like that character should behave. For example, swordsman has high attack value and defense value (but also need to consider swordsman can only do short distance attack and move slow).

The range of extra hits are between 0 to 15/7 dice, which equals to 0 to 12.85 attack hit points. This max value damage is lower than any character's full HP. While this does not happened a lot, the average of HP damage is 7.5, about a half of a character's HP.

(As = Assassin, Hun = Hunter, Th = Thief, Sw =Swordsman, Pr = Priest,

Mag = Magician, Nec = Necromancer, Mer = Merchant)

The value = (row) DEF - (column)max ATK, the max value is 0

	As	Hun	Th	Sw	Pr	Mag	Nec	Mer	Total Hits	Avg. Hits
As	x	-2	-2	-1	0	-1	-1	0	-7	-1
Hun	-1	x	-1	0	0	0	0	0	-2	-2/7
Th	-1	-1	x	0	0	0	0	0	-2	-2/7
Sw	-3	-3	-3	x	-1	-2	-2	-1	-15	-15/7
Pr	-1	-1	-1	0	x	0	0	0	-3	-3/7
Mag	-2	-2	-2	-1	0	x	-1	0	-8	-8/7
Nec	0	0	0	0	0	0	x	0	0	0
Mer	-1	-1	-1	0	0	0	0	x	-3	-3/7
Total Damage	-10	-10	-10	-2	-1	-3	-4	-1	x	
Avg. Damage	-10/7	-10/7	-10/7	-2/7	-1/7	-3/7	-4/7	-1/7		

iii. Special Ability

Through play tests, the players were reluctant to use special abilities because they felt the abilities have too less use cases or too expensive compare to normal attacks. Therefore, most of the special abilities now need lesser dice and some become side effects of normal attacks.

III. Map

i. Map Size

The map size has change from 3 x 4, to 4 x 7 and finally 5 x 5. Since one slot can have one character, 3x 4 is too small for 4 characters. The characters are often blocked. The character amount was scaled to 6 in 2nd version, therefore I made 4 x7. However, I realized that the last row of territory was useless, therefore 2 rows were cut.

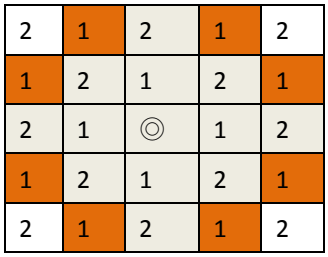
The following is the max distance for a character to move and then hit.

Each character is at the middle of the map; the grey areas represent the walking distance and possible attack area; the orange areas represent the furthest attack area. This make sure that most of the characters have the ability to move and attack the characters easily.

Assassin

Speed:2

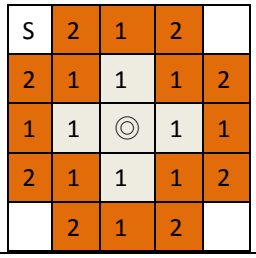
NEAR	FAR
+3	-



Hunter

Speed:1

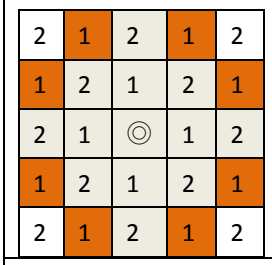
NEAR	FAR
+1	+3



Thief

Speed: 2

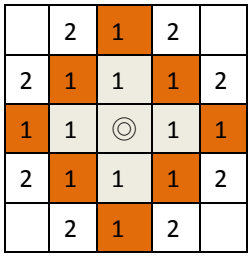
NEAR	FAR
+2	-



Swordsman

Speed:1

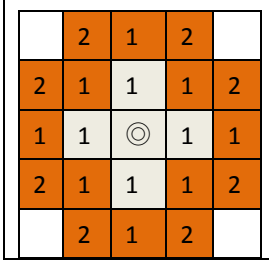
NEAR	FAR
+4	-



Priest

Speed:1

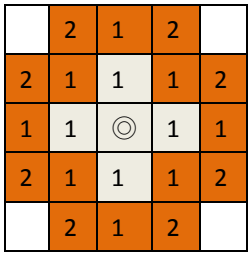
NEAR	FAR
+2	+1



Magician

Speed:1

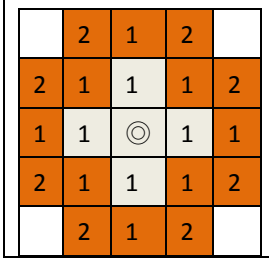
NEAR	FAR
+1	+3



Necromancer

Speed:1

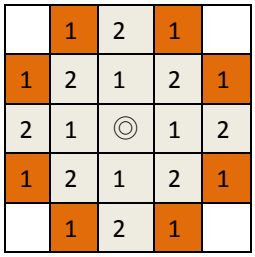
NEAR	FAR
+1	+1



Merchant

Speed:2

NEAR	FAR
+2	-



ii. Treasures

Surprise slots were added since getting the recipe of magic potion from the other player made the game pure battles and did not fit the magic potion theme that well. Adding finding the 3rd piece of the recipe in the fields made the game tight the searching part a little better. Although, the adding treasures did not completing solve the problem, the players like it because the sense of rewarding.

IV. Items

i. Bonus Item

I learned that having too much none items for players was frustrating while giving some bonus dice might make the dice battle more interesting. Revealing dice after the player assuming the other player's max amount of dice are all shown on deck. The other player has chance to use some of the dice to save the character. While 6 none cards in total of 9 cards was bad, the current version has 3 non cards in total of 10 cards. The player has chance of 6/10 to get dice bonus cards and 1/10 to get 1/3 of the magic potion recipe.