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## CMS. 608 / CMS. 864 Game Design

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# Scrabble Search 

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## Overview

Our aesthetic goals in creating our game were discovery and personal expression. We wanted to design a game that supported the exploration of uncharted territory, and also rewarded creativity. The goal of the player in our game is to collect letters and spell words in categories selected by other players. We designed several of the mechanics that allow the player to achieve his goals to support our aesthetic goals. For example, we designed the mechanic of having moving through the board to support exploration. At the start, almost all of the tiles are unexposed to the players, and they must move through these tiles to have them be flipped over and revealed. We also dont allow any player to move within a space of another player, which encourages exploration by giving a player first access to any tiles he discovers.

An example of a mechanic designed to support personal expression is the vague restrictions on categories and on words that satisfy these categories. Since players can spell virtually anything ( 7 letters or less), we hoped that being creative with words that fit a given category would be socially rewarding, with players acknowledging and laughing at clever responses.

Of the four types of players described in "Hearts, Clubs, Diamonds, and Spades: Players who Suit MUDs," we strove for a game that was meant mostly for the explorer and the socialiser ${ }^{1}$. The explorer is supported because he can explore the physical space of the game (the tiles), and later can explore the depth of the game, by creatively testing the bounds of what words other players will accept for different categories. The socialiser is supported because our game involves a lot of player-player interaction. Players decide on categories for others to try to spell words in, and even decide if another players words are acceptable for a given category. The close physical relation of all players of our game and some downtime (due to other players thinking) also allow for social interaction between players.

In fact, if players try to compete competitively (as an achiever or an imposer might), our game becomes much less fun. Just as described by Stephen Balzac when playing a LARP, the players main goal should be to enjoy themselves and have fun through exploration and creativity, not to win in the competitive sense ${ }^{2}$. When iterating through our design through play testing, we kept this goal in mind. To discourage players from just trying to beat other players, we didnt provide many forms of conflict in our game. In Rules of Play, Katie Salen and Eric Zimmerman would describe the conflict in our game as indirect conflict ${ }^{3}$. For the most part, players cant interfere with each others success. This was a desired dynamic of our game, since it doesnt allow players to impede each other from discovery and expression.

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## Iteration 1

## Rules

## Overview

The purpose of this game is to explore a space of letters on a game board, and collect letters to spell words. A category of word must be agreed upon for the first round at the start at the game, and then each successive category is chosen by the winner of the previous round. A round lasts until a player successfully spells a word in the designated category. An entire game consists of several consecutive rounds. The number of rounds played is decided before the game starts (e.g. first to 3 , first to 5 ).

## Start

The board is a $14 \times 13$ grid covered by 182 face-down letter tiles. Each player starts at a designated start location on the board, and collects the piece at that location, flipping over the four pieces in contact with the start location. Roll dice to see who goes first, and proceed in a clockwise fashion starting with the payer whose roll is highest.

## Taking a Turn

A player can make one move per turn. A player can move to any location on the board (including spaces where letters are still face-down), except to any of the four spaces surrounding any of the other players. If that space still has a letter in it, then the player MUST collect that letter. If the letter was face-down, the player need not reveal what letter he or she picked up. Blank tiles can be used for any letter.

If collecting this letter puts the player over his maximum number of letters (7), then the player must discard one letter. When a letter is discarded, it is removed from the game permanently. The identity of discarded letter need not be revealed to other players. If any of the four spaces surrounding the player's new location are still face down, flip them to face up (see Figure).


## End of Round

A round ends when any player successfully spells a word in the current category. When this happens, the player that succeeds discards all his letters used in spelling the word, but all other letters are kept for the next round. A new category is selected, and play continues where it left off.

## Analysis

After our first iteration, we quickly discovered a UI problem with our game. Since the tiles were made of paper and placed closely together, they were difficult to pick up. This discouraged players from exploring the physical depth of the game, they were reluctant to move to new places because they would have to deal with flipping over pieces. We also discovered the undesired dynamic of players creating the shortest, first word they could. This went against our goal of allowing the players to be creative, because the category would be changed before a player got the chance to spell a long, creative word. This essentially added a form of conflict to the game, that of trying to spell a short word and win the round, rendering the tiles other players had gathered for a word in that category less useful to them. We decided to address the UI issue in our next iteration of the game.

## Iteration 2

## Objective

The goal for the second iteration of the game was to solve the UI issues we encountered in our initial playthrough. We also wanted to begin exploring mechanics that would encourage players to play longer words.

## Gameplay Changes

The game was played with a set of 100 Scrabble tiles, on a $10 \times 10$ grid. At the end of a round, the player with the winning word gets a number of points corresponding to the value of their word in Scrabble (i.e. the sum of the values indicated on their tiles). The game ends when all players agree that they cannot play a word in the current category using the letter they have collected and those remaining on the board. The winner is the person with the most points.

## Analysis

The change from small paper tiles to the physical Scrabble tiles improved the UI issues encountered during the initial iteration. However, the Scrabble board was not entirely useful for the new iteration. In particular, it became difficult to keep track of the grid on which the tiles were arranged, since the Scrabble grid was too closely spaced, and would lead to the same UI issue as the previous design, with slightly larger tiles. So, the change was very much a positive, in that it improved the UI, but it didnt resolve the interface issues entirely.

The addition of the scoring mechanic also helped to address the issue with using short words. In particular, the point values Scrabble assigned to the tiles encouraged players to think of words containing rarer letters, like Z and Q. However, the scoring aspect added a further potential incentive for conflict, since there was a drive
to score the largest number of points. In addition, there still was a strong drive to simply place the first word possible, since there was no penalty for placing shorter words, or for the number of words played. Single-letter words were still played, which would grant very few points but confer the larger benefit of selecting a category that favored one's remaining tiles.

## Iteration 3

## Objective

This iteration, we sought to devise a mechanic that encouraged bigger plays not by rewarding longer words, but making it easier for players to punish shorter ones.

## Gameplay Changes

When a player put a word into play, any of the other players could challenge it. The challenging player made a bet of size $k$, so that $k$ additional turns are played, excluding players that have already submitted words. At the end of these turns, the challenging player must play a word at least $k$ letters longer than the challenged word, or else the challenge fails. If a challenge fails, the challenging player discards all of his tiles. If a challenge succeeds, the person whose play was challenge simply loses the tiles in his played word.

We simultaneously removed the Scrabble-style scoring of words, and returned to declaring the winner to be the player who successfully submitted words for the most categories.

## Analysis

The mechanic was effective in increasing the length of words being played. Players waited for five-letter words during early stages of the game. This change also introduced drama into the game, creating tension when a challenge depended on acquiring a letter that wasnt revealed on the board. The main issue with this iteration was that frequent challenging tended to strip the board of useful letters, i.e. vowels, Ss, and Ts, so that finding words using the depleted set of tiles became difficult. The possibility of losing many tiles at the time also made players more hesitant to submit words, which slowed the game down and also exacerbated letter depletion when players discarded to find that perfect six or seven letter word.

## Final Iteration

## Objective

For this iteration, we made a minor adjustment to challenge rules to make losing challenges less painful. We also changed a few potential ambiguities in the rules.

## Gameplay Changes

Upon losing a challenge, discard half of your tiles (rounded up) if you are the challenger, or discard half of the tiles (rounded up) in your submitted word if you are challenged (and keep the rest).

Challenges must be made "in sequence," so that when a word is played, the player to that person's left gets the first chance to challenge, or may pass it up to the next person, and so forth.

During the course of a turn, one should move, draw a tile, play a word if desired, and then discard. This means that it is possible to play eight-letter words. It also prevents the loss of a tile if one has seven tiles, draws, and then plays a word.

## Analysis

This tweak removed the hesitation players showed last iteration. Players were both more willing to put forth words, as well as more willing to challenge other players. The game has now switched from our original goal of an exploratory, social game to one more competitive in nature. Still, the mechanics that incorporate player conflict actually contribute to the game's social playability, since they regulate word length and prevent players from overusing simple three-letter words.

## Final Rules

## Setup

Place all 100 Scrabble tiles face down on the board in a $10 \times 10$ grid. Each player places his token on one of the designated starting locations, and takes the tile from that space. The four adjacent tiles are flipped to reveal their letters. Players then roll a die to determine who goes first. The player with the highest roll goes first, and play continues clockwise. The first player also determines the initial word category.

## Word Categories

There are no restrictions on the categories which may be used as word restrictions. A few suggestions for ideas for the stuck include animals, insects, brands, or winter. The determination of whether a word fits into a category is left to the discretion of the players.

## Normal Play

On a players turn, they may move to any square on the board with a letter tile so long as it is not adjacent to another player. When a player moves to a square, they must collect the tile there, and flip any tiles which are face down in the 4 adjacent squares. If, at the end of his turn, the player has more than 7 tiles, he must choose 1 to discard. Discarded tiles are placed face down out of the game.

## Playing Words

If, after moving, a player can play a complete word which matches the current category, he may do so. When a word is put into play, other players may challenge the player. In a challenge, the player states that they can create a longer word in a set number of turns. The word they create must be at least as many letters longer than the current word as the number of turns requested. As an example, if a player plays a 3 letter word, and his opponent asks for 1 turn to challenge it, they must play a word at least 4 letters long on the next turn. If the challenger is unsuccessful, they must discard half of their tiles (rounded up). If they are successful, the other players are allowed a chance to challenge, otherwise the new word wins the round, and they are allowed to select the new category. Players whose words are successfully challenged must discard half of the tiles in their submitted words (rounded up), and may keep the rest.

## End Game

The game ends when there are no longer enough remaining tiles for anyone to create a word in the current category. The winner is the player that has completed the most categories.


[^0]:    ${ }^{1}$ Bartle, Richard. (3 May 1996.) "Hearts, Clubs, Diamonds, and Spades: Players who Suit MUDs." http://mud.co.uk/richard/hcds.htm
    ${ }^{2}$ Balzac, Steven. (5 May 2008)
    ${ }^{3}$ Salen, Katie and Zimmerman, Eric. Rules of Play. MIT Press: Cambridge, MA, 2004

