

scarbble

by David Railton

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Report on the rules of Scrabble
produced by:

David Railton

2206908

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Foreword

Scrabble was originally a game called Lexiko for a short time and then Criss Cross which was loosely based on crosswords and anagrams.

Starting as an underground craze in america it did not take long for this to reach the general public and become the global past time that is Scrabble.

The game of Scrabble was actually developed in 1931 by an architect by the name of Alfred M. Butts who, after studying many different games and types of games, decided that to combine a game that combined both chance and skill.

Renamed, redesigned and rebranded as Scrabble it was marketed by James Brundt in 1948 and sold in Great Britain from 1954.

[1]

Today more than one in three homes world wide owns a game set of scrabble and has sold more than one hundred million copies since its introduction to the world in 1954.

Production of the game was rejected by the current(at the time)game companies.

The game of scrabble started with Albert M. Butt and some friends hand making the games in an abandoned school, carving and stamping the boards by hand, turning out maybe twelve board sets an hour before suitable manufacturing premises were found. Even so they ran at a loss.

By 1952 the realisation that they could not meet the manufacturing demands and following recognition from the president of Macy's they licensed the game to Long Island game company Selchow and Righter Company.

This was a well known company that had existed in north america since 1867.

Over the years the rights have been bought and sold as have the companies that owned or produced them.

Coleco, the producers of the Cabbage Patch Kids, were the last to own the license before going bankrupt in 1989 and the companies most worthy assets such as Parchesi and scrabble were bought by the company we all now know as the main and distributor of scrabble, Hasbro.

Rules of Scrabble--OFFICIAL

When playing Scrabble, anywhere from two to four players will enjoy the playing is to score more points than other players. As words are placed on the board they are collected and each letter that is used in the game will have a different value. A good strategy is to play words that have the highest possible score based on the letters used.

1.1 The Scrabble Board

A standard Scrabble board will consist of cells that are located in a large square. The board offers 15 cells high and 15 cells wide. The tiles used on the game will fit into the cells.

1.2 Scrabble Tiles

There are 100 tiles that are used in the game and 98 of them will contain a letter. There are 2 blank tiles that can be used as wild tiles to take the place of any letter. If a letter is played, it will remain in the game as the letter it substituted for.

Different letters in the game will have various point values and this will depend on the letter and how difficult it may be to lay that letter. Blank tiles will have 0 points.

1.3 Tile Values

Below are the point values for each letter that is used in a Scrabble game.

0 Points - Blank tile.

1 Point - A, E, I, L, N, O, R, S, T and U.

2 Points - D and G.

3 Points - B, C, M and P.

4 Points - F, H, V, W and Y.

5 Points - K.

8 Points - J and X.

10 Points - Q and Z.

1.4 Extra Point Values

When looking at the board, players will see that some squares offer multipliers. If a tile is placed on these squares, the value of the tile will be multiplied by 2x or 3x. This means you also multiply the total value of the word and not just the single point value of the tile.

Double Letter Scores - The light blue cells in the board are isolated and if a tile is placed here they will double the value of the tile placed on that square.

Triple Letter Score - The dark blue cell in the board will be worth triple the value of the tile placed here will earn more points.

Double Word Score - When a cell is light red in colour, it is a double word score. When a word is placed diagonally on the board, towards the four corners. When a word is placed on these squares, the entire value of the word will be doubled.

Triple Word Score - The dark red square is where the high points can be found. Placing any word on these squares will triple the word score. Placing any word on these squares will boost points found on all four sides of the board and are equidistant from the corners.

One Single Use - When using the extra point squares on the board, the score is doubled only once. If a player places a word here, it cannot be used as a multiplier by the same square.

1.5 Starting the Game

Without looking at any of the tiles in the bag, players will take one tile. The player whose letter is closest to "A" will begin the game. A blank tile will win the score. After tiles are used, they are replaced to the bag and used in the remainder of the game.

Every player will start their turn by drawing seven tiles from the Scrabble bag. During a turn, players have several options: they can place a word, they can exchange tiles, or they can choose to pass. In most cases, players will try to place a word; otherwise, the turn will result in no score.

When a player chooses to exchange tiles, they can choose to exchange one or more tiles from the tiles they currently hold. After tiles are exchanged, the turn is over and players will wait for their next turn to place a word on the board.

Players can choose to pass at any time. They will forfeit that turn and have to wait for their next turn. If any player passes two times in a row, the game will end and the player with the highest score will win.

1.6 The First Word Score

When the game begins, the first player will place their word on the star square on the board. The star is a double square and will offer a double word score. All subsequent words are built off of this word, extending the game to other squares on the board.

Play continues in a clockwise direction around the Scrabble board.

1.7 Replacing Scrabble Tiles

Once tiles are played on the board, players will draw new tiles to replace them. Players always have seven tiles during the game. Drawing tiles is always done with a bag so that the letters are always unknown.

1.8 The Fifty Point Bonus

Exciting rewards can come when players use all seven tiles to create a word. When this happens, players will receive a 50 point bonus, in addition to the value of the word. If the game is near the end and players are not holding seven tiles, they do not receive the bonus. This is only collected for seven letter words placed.

1.9 The End of a Scrabble Game

Once all tiles are gone from the bag and a single player has placed all of their words, the game ends and the player with the highest score wins.

1.10 Tallying Scrabble Scores

When the game ends, each player will count all points that are remaining on the board and not been played. This amount will be deducted from the final score.

An added bonus is awarded to the player that ended the game and has no words remaining. The values of all remaining words will be added to the score of the player who ended the game to produce the final score for the game.

The Scrabble player with the highest score after all final scores are tallied wins the game.

1.11 Accepted Scrabble Words

Any word that is found in a standard English dictionary can be used in the game. There are also Official Scrabble Dictionaries that can be purchased for more information.

There are some words that are not allowed to be played and these include proper nouns, abbreviations. Any word that requires the use of a hyphen or apostrophe is not allowed in the game. Any word that required the use of a capital letter is not allowed.

When playing an English version of the game, foreign words are not allowed on the board. However, if the foreign word does appear in a standard English dictionary, it can be used.

The reason for this is due to the fact that the word is spoken enough and English language.

Here I have included the official rules of scrabble as published by the company with no changes to the rules in over fifty years.

People do sometimes have their own little family rules that differ slightly. However it is always a game of chance and skill [2].

The game starts with a set of 100 tiles and a board. The players decide which dictionary they are using to play the game.

A minimum of two players is usually needed to begin, unless a player wants to go solo.

Each player begins with 7 tiles and begins by trying to make a word through the centre tile.

If they cannot go the turn passes to the other player who attempts to make a word through the centre tile too. Once a word is made the points on the tiles and the points on the board are tallied for that score on that turn.

Points are kept score on pad with paper or other medium.

This continues until all tiles are played or no more words can be found.

The player with the highest score wins.

Requirements using MoSCoW

MoSCoW means:

1. Must have
2. Should have
3. Could have
4. Won't have

Must haves:

1. More than one player
2. A full set of 100 tiles
3. A playing board
4. Honesty

Should have:

1. Pen or pencil
2. Note pad
3. Vision
4. Rack
5. Dictionary

Could have:

1. Table
2. Friends
3. Snacks and drinks
4. Chairs

Won't/would have:

1. Digital spell checker
2. Anagram solver
3. Rotating table
4. Digital scoreboard

Within MoSCoW on the could haves and won't/would haves the lists could be almost endless therefore common sense is required when producing these so as to avoid anything excessive, confusing or plain ridiculous.

2 Identifying variables and constants in Scrabble

In Scrabble there are constants and variables.

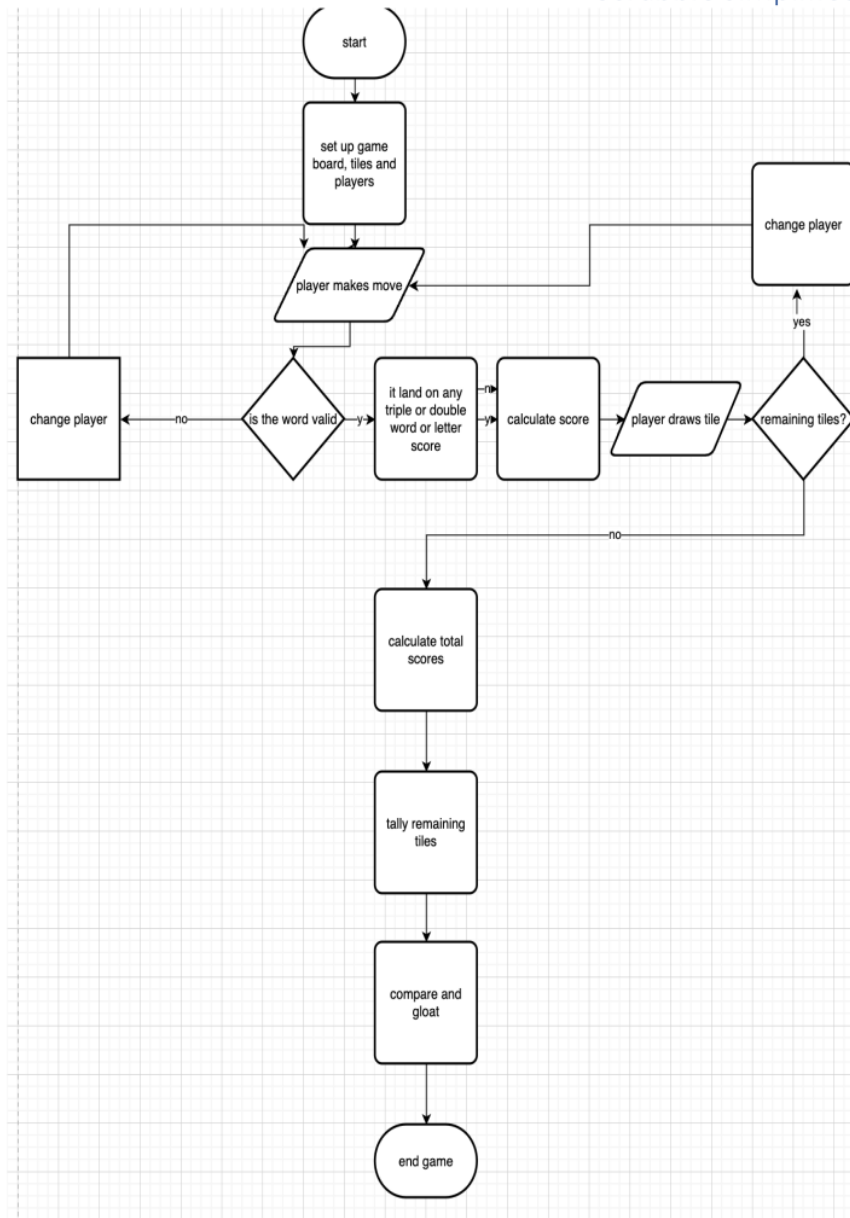
A constant is something that is set and stays the same for the duration of the game. i.e. the value of an individual tile or the points value of a space on the board.

A variable is something that is or can be changeable.

In Scrabble these are such things as:

1. Amount of players
2. Players names
3. Points scored for each turn
4. Points added through combination of tile and board points
5. Points scored by each player
6. Amount of tiles used for each turn
7. Words spelt
8. Point tally system
9. Tiles left in bag after each turn
10. Tiles left at the end of the game

Flow chart depiction of Scrabble simplified



3 Pseudo-code of Scrabble

- Start with Scrabble game in hand
- Choose number of players
- Set up and lay out the game
- Decide who goes first
- Set up tiles and racks
- Choose anti-clockwise or clockwise
- Player one makes first move
- Is the word valid?
 - If no, play switches to next player
 - If yes, does it land on any multiplier squares?
- Calculate the score
- Are there any tiles left
 - If no, calculate all players total score
 - If yes, player one draws fresh tiles
- Player two makes move
- Is the word valid
 - If no, play switches to next player
 - If yes, does it land on any multipliers
- Calculate the score
- Are there any tiles left
 - If yes, player one draws fresh tiles
 - If no, calculate all players total score

- Tally the remaining tiles
- Subtract from the players whose turn it is
- Tally final scores
- Declare winner
- Gloat
- Finish

Within this report I have tried to represent an easily readable depiction and explanation of the game Scrabble. I have not used any outside references and have worked purely from my knowledge of the game and how I best understand its conversion into a flowchart and pseudo-code.

Rather than write out the pseudo-code first, I produced the flowchart and worked backwards from there.

Maybe not the easiest way to do this especially as the code really should be produced first, almost as a draft so you can see where you are going with the work at hand.

4 Bibliography

- [j. c. scrabble.org, "scrabble history," july 2021. [Online]. Available:
1 https://scrabbleplayers.org/w/SCRABBLE_History#:~:text=The%20story%20of%20the%20game's,to%20invent%20a%20board%20game.. [Accessed dec 2023].
] s. pages, "scrabble pages," scrabbles pages, 2020. [Online]. Available:
2 scrabblepages.com. [Accessed fri nov 2023].
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FINAL GRADE

54/100

GENERAL COMMENTS

Work is of a standard that satisfies the brief but could possibly have been greatly benefitted by further viewing of in-class material as some errors have been made in relation to the over simplification of certain aspects in solution.

Document could also benefit from more formatting as elements are difficult to read and lack narrative throughout the report.

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