

Sequential Placement Optimization Games:
Poker Squares, Word Squares, and Take It Easy!

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Outline

- Learn and play Poker Squares
- Generalize game concepts (sequential placement optimization games)
- Learn and play two closely related games:
 - Word Squares
 - Take it Easy!
- Final Game Design Thoughts

Poker Squares

- Materials:
 - shuffled standard (French) 52-card card deck,
 - paper with 5-by-5 grid, and
 - pencil
- Each turn, a player draws a card and writes the card rank and suit in an empty grid position.
- After 25 turns, the grid is full and the player scores each grid row and column as a 5-card poker hand according to the American point system.

American Point System

<u>Poker Hand</u>	<u>Points</u>	<u>Description</u>	<u>Example</u>
Royal Flush	100	A 10-J-Q-K-A sequence all of the same suit	10♣, J♣, Q♣, K♣, A♣
Straight Flush	75	Five cards in sequence all of the same suit	A♦, 2♦, 3♦, 4♦, 5♦
Four of a Kind	50	Four cards of the same rank	9♣, 9♦, 9♥, 9♠, 6♥
Full House	25	Three cards of one rank with two cards of another rank	7♠, 7♣, 7♦, 8♥, 8♠
Flush	20	Five cards all of the same suit	A♥, 2♥, 3♥, 5♥, 8♥
Straight	15	Five cards in sequence; Aces may be high or low but not both	8♣, 9♠, 10♥, J♦, Q♣
Three of a Kind	10	Three cards of the same rank	2♠, 2♥, 2♦, 5♣, 7♠
Two Pair	5	Two cards of one rank with two cards of another rank	3♥, 3♦, 4♣, 4♠, A♣
One Pair	2	Two cards of one rank	5♦, 5♥, 9♣, Q♠, A♥
High Card	0	None of the above	2♦, 3♣, 5♠, 8♥, Q♦

Scoring Examples

PySol - Poker Square

File Select Edit Game Assist Options Help

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0

Royal Flush	100	1
Straight Flush	75	0
Four of a Kind	50	0
Full House	25	2
Flush	20	3
Straight	15	0
Three of a Kind	10	1
Two Pair	5	1
One Pair	2	2

WON

Total: 229

100 20 20 20 2

1:38 25/25 147: 89/58

PySol - Poker Square

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Royal Flush	100	0
Straight Flush	75	1
Four of a Kind	50	2
Full House	25	0
Flush	20	2
Straight	15	0
Three of a Kind	10	1
Two Pair	5	0
One Pair	2	2

WON

Total: 229

20 0 75 20 0

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Let's Play!

<u>Poker Hand</u>	<u>Points</u>	<u>Description</u>	<u>Example</u>
Royal Flush	100	A 10-J-Q-K-A sequence all of the same suit	10♣, J♣, Q♣, K♣, A♣
Straight Flush	75	Five cards in sequence all of the same suit	A♦, 2♦, 3♦, 4♦, 5♦
Four of a Kind	50	Four cards of the same rank	9♣, 9♦, 9♥, 9♠, 6♥
Full House	25	Three cards of one rank with two cards of another rank	7♠, 7♣, 7♦, 8♥, 8♠
Flush	20	Five cards all of the same suit	A♥, 2♥, 3♥, 5♥, 8♥
Straight	15	Five cards in sequence; Aces may be high or low but not both	8♣, 9♠, 10♥, J♦, Q♣
Three of a Kind	10	Three cards of the same rank	2♠, 2♥, 2♦, 5♣, 7♠
Two Pair	5	Two cards of one rank with two cards of another rank	3♥, 3♦, 4♣, 4♠, A♣
One Pair	2	Two cards of one rank	5♦, 5♥, 9♣, Q♠, A♥
High Card	0	None of the above	2♦, 3♣, 5♠, 8♥, Q♦

Strategy Discussion

PySol - Poker Square

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Royal Flush	100	1
Straight Flush	75	0
Four of a Kind	50	0
Full House	25	2
Flush	20	3
Straight	15	0
Three of a Kind	10	1
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PySol - Poker Square

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Royal Flush	100	0
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Flush	20	2
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Three of a Kind	10	1
Two Pair	5	0
One Pair	2	2

WON

Total: 229

20 0 75 20 0

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Generalizing Poker Squares

- A random item (e.g. playing card) is announced to all.
- Each player independently places that same item into a grid (e.g. 5x5 square grid).
- These steps are repeated (e.g. until grids are full).
- The goal is to place the items so as to achieve the highest scoring configurations of items (e.g. poker hands).
- “Sequential Placement Optimization Games”
 - <https://www.boardgamegeek.com/geeklist/152237/sequential-placement-optimization-games>

Word Squares

a.k.a. Crosswords, Word Exchange, Stock Exchange

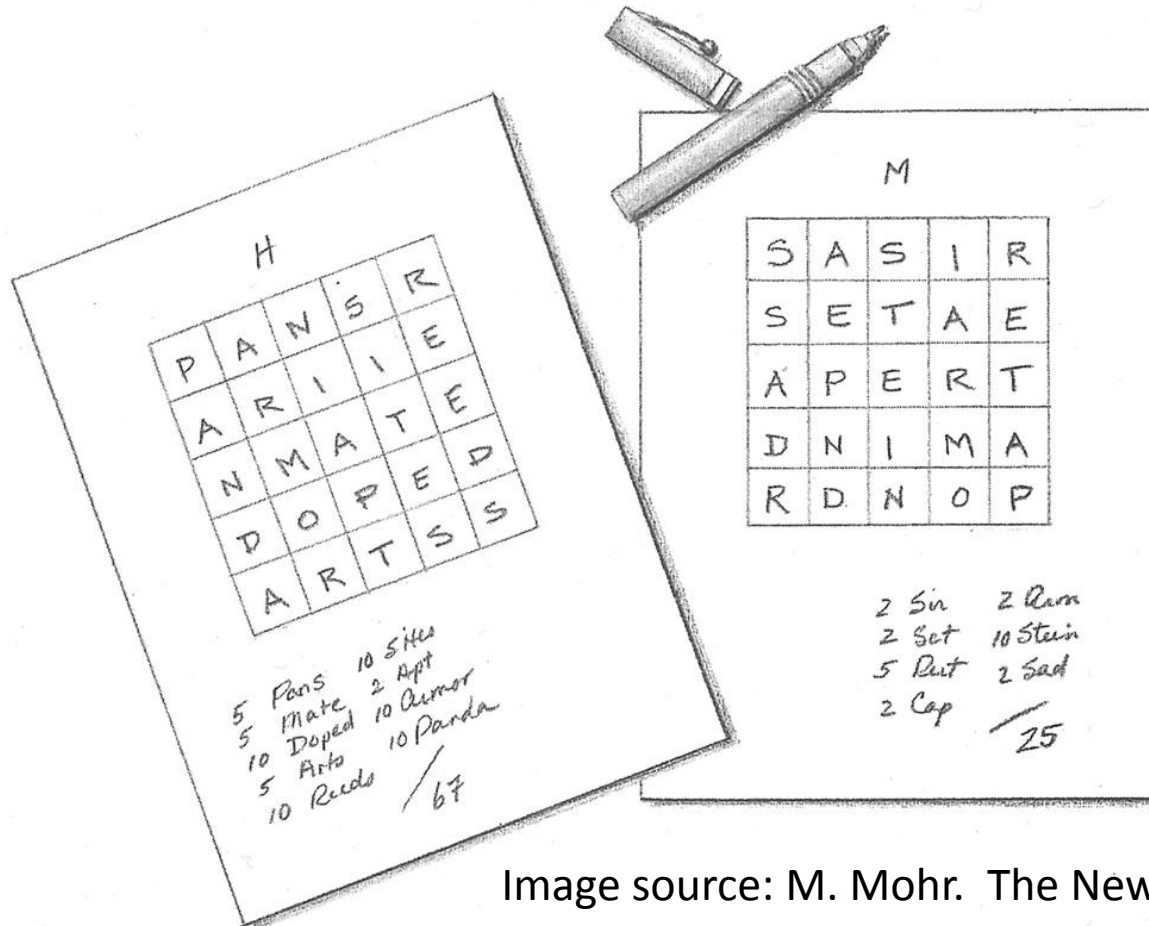


Image source: M. Mohr. The New Games Treasury

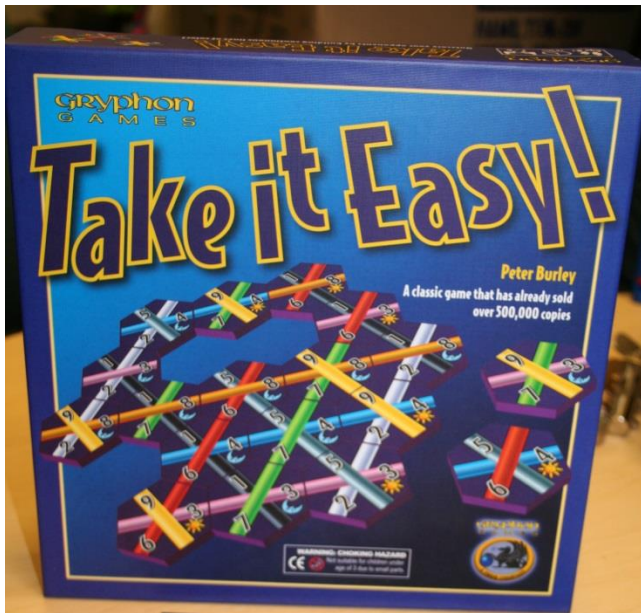
Word Squares General Overview

- A random **letter** is announced to all.
- Each player independently places that same **letter** into a **5x5 square grid**.
- These steps are repeated until grids are full.
- The goal is to place the **letters** so as to achieve the highest scoring **words**.

Word Squares Rules

- Each player has a pen and paper with a 5x5 grid.
- Players take turns choosing and announcing letters that each player must write into an empty grid space.
- After 25 turns, grids are scored for words formed across/down within rows/columns as follows:
 - 5 letters → 10 points; 4 letters → 5 points; 3 letters → 2 points
 - Words contained within other words do not count. E.g. one scoring TWINS cannot also score TWIN, WIN, WINS, and INS.
 - Overlapped words may score. E.g. a row/column with GAMEN would score both GAME and AMEN for $2 \times 5 = 10$ points.
 - As in other word games, challenges are allowed, so that players should agree upon word restrictions (e.g. 3-or-more-letter Scrabble words) and a dictionary (e.g. Scrabble player's dictionary) to check challenges.

Take it Easy!



Ravensburger App Example Board



Take it Easy! General Overview

- A random **hex tile with numbered, colored lines** is announced to all.
- Each player independently places that same **hex tile** into a **hexagonal hex grid with 3 hexes on a side**.
- These steps are repeated until grids are full.
- The goal is to place the **hex tiles** so as to achieve the highest scoring **completed single-color lines across the grid**.

Take it Easy! Rules

- Each of the 27 hex tiles has number, colored lines edge-to-edge through the tile center
 - Each color corresponds to a specific number 1-9.
 - There are 3 colors/numbers for each direction, and tiles must be oriented with numbers upright.
- Each player has the same 27 tiles. One player mixes his/her tiles facedown, drawing, announcing, and placing each tile into an empty grid space along with all other players.
- Once all 19 hexagonal hex grid spaces are full, scoring occurs. For each line of a single color that spans the entire grid, a player scores the number of tiles in the line multiplied by the line number (1-9).

Concluding Thoughts

- The difficult part of game design is creating good game mechanics.
- Once a good mechanic is devised, it can be applied in many ways.
 - In this case, the sequential placement optimization game (SPOG) mechanic served to create a Poker solitaire game, a word game, and a line formation game.
- Note that one can mutate designs both by adding and taking away constraints.
 - Example: Imagine removing a constraint that SPOG configurations must be along lines. What if one used a hex grid with different terrain/building types, with scoring according to adjacency of different tile types.

Resources and References

- Gettysburg College Poker Squares Page:
<http://tinyurl.com/pokersqrs>
 - References
 - Rules and play grids
- Word Squares:
 - Marilyn Simonds Mohr, [The New Games Treasury](#), 1997.
 - <http://boardgamegeek.com/boardgame/10210/word-squares>
- Take it Easy!:
 - <http://boardgamegeek.com/boardgame/128/take-it-easy>
- “Sequential Placement Optimization Games”
 - <https://www.boardgamegeek.com/geeklist/152237/sequential-placement-optimization-games>