

## Behavioral Contracts

### 1. Operation: Tiles are placed on the board

#### Preconditions:

- a. It is a valid players turn
- b. First word on board must be on H8 tile and be at least 2 letters
- c. Word formed must be adjoined to the cluster in some form
- d. Must create a word in the dictionary
- e. 4 ways of creating a word: Adding one or more letters to an existing word, playing perpendicular to that word, "Hooking" a word and playing perpendicular to that word (forms two words), Playing parallel to a word(s) forming several short words
- f. All the letters placed are in one column or row
- g. Word must fit on the board
- h. Word must be read left $\leftrightarrow$ right or top $\leftrightarrow$ bottom.
- i. Empty space on the board for word to fit
- j. A player can challenge
  - i. Check if the word is in the dictionary
  - ii. If not a word, the offending player removes the tiles played and loses his or her turn
  - iii. If it is a word, the challenger loses his or her turn.

#### Post Conditions:

- a. Tiles take up space on board
- b. Score updated
- c. Check if special tile(s) were activated, then only most recent one gets activated.
- d. If 7 letters have been placed, add 50 points
- e. If no more times are available to replace the player's set of tiles, then game is over