```
                    **************************
                         Playing Matches
                    **************************

 Match #    Opponent    AB_Improved    AB_Custom    AB_Custom_2  AB_Custom_3
                         Won  | Lost    Won  | Lost   Won  | Lost   Won  | Lost
    1       Random       18   |   2     19   |   1    18   |   2    12   |   8
    2       MM_Open       6   |  14      4   |  16     8   |  12     3   |  17
    3       MM_Center    14   |   6     12   |   8    12   |   8     3   |  17
    4       MM_Improved   7   |  13      6   |  14     3   |  17     3   |  17
    5       AB_Open       5   |  15     13   |   7     8   |  12     6   |  14
    6       AB_Center    17   |   3     16   |   4    15   |   5    12   |   8
    7       AB_Improved   7   |  13     14   |   6     9   |  11     3   |  17
------------------------------------------------------------------------------
            Win Rate:      52.9%        60.0%        52.1%        30.0%
```

The rate of matches among different heuristic agents are shown above. As we can see, the custom_score is relatively higher. While custom_score_3 is giving very low performance.

custom_score:

I used (own_moves – 2 * opp_moves) to estimate the board score. This means I would put more weight on preventing my opponent from winning. If my opponent has less spaces to move to, I would have more chance to win.

custom_score_2:

I used (2 * own_moves – 3 * opp_moves) to estimate the board score. In which I just tried different weights for my own moves and opponent moves.

custom_score_3:

I used the (distance from current position to center - opp_moves). The more distance from current position to center, the more space to explore, while there should be less opportunities for the opponent to win. But this turns out to have a very low score among all the strategies. I think it's because the distance from current position to center cannot really represents the chance of more spaces for myself.