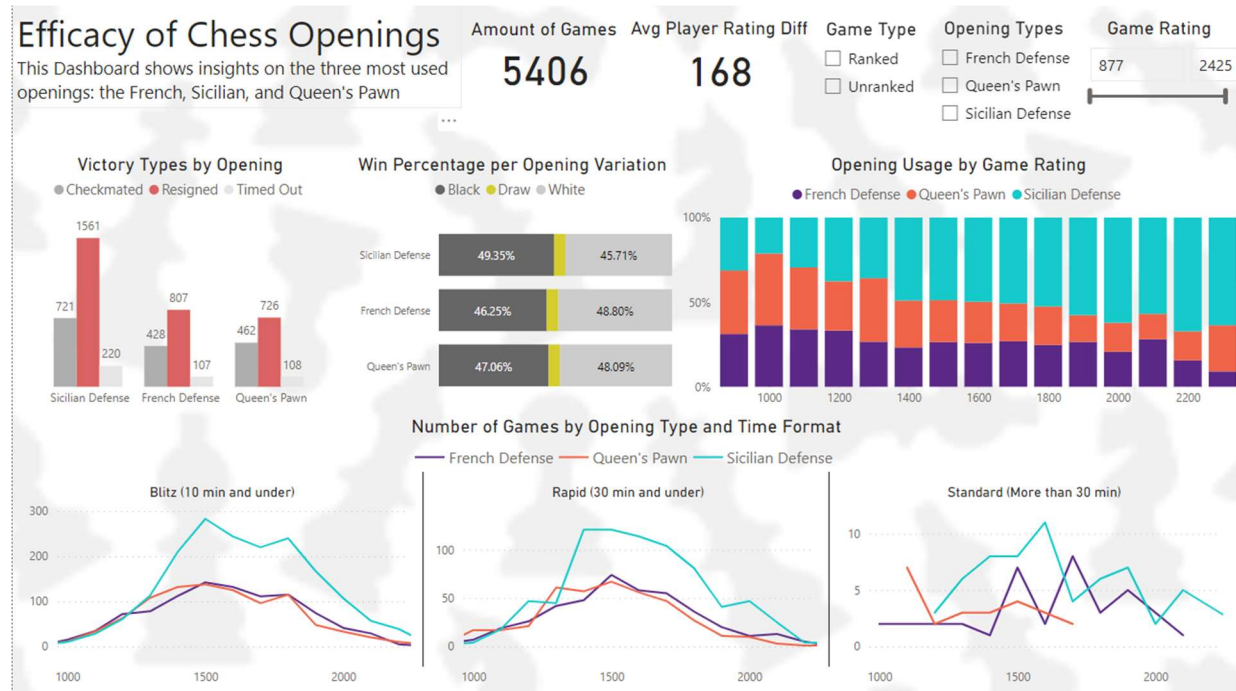


Online Chess Games Dashboard

Overview

This dashboard examines and provides insights on the three most used openings amongst the dataset the French Defense, Queen's Pawn, and Sicilian Defense.



Business Questions

The dashboard can be used to answer the following questions:

- What are the top three most frequently used openings in the dataset?
- What are their respective winning percentages by piece color?
- What are the most frequent types of victories achieved (Checkmate, Resignation, Timed Out) for each opening variation?
- Which of the openings examined are most popular according to game rating?
- Which time formats is each opening used in comparatively?

Data Source

The dataset is Maven Analytics' Online Chess Games dataset for The Queen's Gambit challenge. Each row of data contains data points for each game recorded:

- The opening_shortname and game_id fields identify the top three opening variations measured by total occurrences among all games recorded within the dataset. The three most-used openings selected by this measure were the following:
 - French Defense
 - Sicilian Defense
 - Queen's Pawn
- There are four measures innate to the dataset that were used:
 - winner – shows the end result of each game: White, Black, Draw
 - rating – identifies whether the recorded game was a ranked game or not
 - victory type – tells whether the game
 - time_increment – shows what exact time format was used for the particular game

Calculated Fields

The following calculated fields have been added to display both the difference of ratings between players and the time increments in a digestible format:

- `game_rating = (chess_games[white_rating] + chess_games[black_rating])/2`
 - Further formatted by bins into `game_rating (bins)` that groups all ratings recorded into buckets of 100 point increments
- `rating_diff = IF((chess_games[white_rating] - chess_games[black_rating]) >=0, chess_games[white_rating] - chess_games[black_rating], chess_games[black_rating] - chess_games[white_rating])`
- `time_increments (groups)` is the `time_increment` column grouped into three formats:
 - Blitz – includes all time formats that are 10 minutes or less
 - Rapid – includes all time formats that are 30 minutes or less excluding Blitz
 - Standard – includes all time formats that are more than 30 minutes

Dashboard Layout

The dashboard consists of two main areas in the following vertical order:

- Header area (Title and subtitle, KPIs, and filters)
- Main charts area

The Main Charts

- **End Result by Opening:** A clustered column chart that displays the count of games that ended in each particular game ending by opening variation type

- **Win Percentage per Opening Variation:** A 100% stacked bar chart that shows the percentage of total games that ended as a victory for white or black, or games that ended in a draw by each opening variation, thereby calculating win percentage
- **Opening Usage by Game Rating:** A 100% stacked column chart showing the popularity of each of the three openings at varying rating levels sorted by ascending rating. Gleans which opening tends to be more popular at particular ranks
- **Number of Games by Opening Type and Time Format:** A line chart showing each of the three opening variations used in each bucket of time formats (Blitz, Rapid, and Standard) measured by the amount of games each opening variation was used in the respective time formats

KPI Cards

There are two KPI cards on the dashboard:

- **Amount of Games:** The combined amount of games that each of the opening variations were recorded within the dataset
- **Avg Player Rating Diff:** The average difference in individual player rating for each game, averaged out per all games within the three examined opening variations

Slicers

- **Game Type:** A vertical list slicer that filters between ranked and unranked games
- **Opening Types:** A vertical list slicer that filters between each opening variation
- **Game Rating:** A range slicer that filters between all game rating observations to show changes in data amongst ratings

Non-visible Filters

- The data is formatted to show the top three opening variations (opening_shortname) by total games (game_id) and is manually filtered for some charts due to the top three changing with small sample sizes due to adjusting slicers