

## The Rating Plateau: Where Does Stagnation Most Often Occur?

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**ABSTRACT:** Rating plateaus are a significant challenge for chess players of various levels. They are demonstrated as periods of stagnation where progress becomes difficult to achieve. By analyzing the difference between 2000-2100 and 2400-2500 rated chess players on the Lichess online platform, the research investigates the distribution of stagnation among different levels of skills. Data analysis of game results, which included win, draw, and loss percentages, showed differences between these groups. Additionally, a survey among amateur players highlighted common trends. Findings indicate that lower-rated players face more pronounced plateaus due to a lack of fundamental skills, while higher-rated players encounter different challenges, such as adaptation to evolving competition. Insights from this study can help to create better training strategies and, as a result, help overcome the rating plateau.

**Keywords:** chess, rating, plateaus, skill development, learning curves, pattern recognition, performance rating, chess training, chess analysis

### I. INTRODUCTION

Chess has a rich history, with unchanged rules since the 16th century. While there's a vast library of chess books on strategy and gameplay, surprisingly, there is less information about how to train and improve as a chess player over time.

And yet, at different times, such outstanding coaches and chess players as Em. Lasker (1897, 1926), A.A. Alekhine (1932, 1937), B.M. Blumenfeld (1945), V.A. Alatortsev (1962), N.V. Krogus (1969/1976, 1981), A.A. Kotov (1970, 1985), M.M. Botvinnik (1979, 1985, 1986), B.A. Zlotnik (1986), M.I. Dvoretzky (1989, 1997), V.A. Bologan (1996), M.A. Vershinin (2002, 2005), I.V. Mikhailova (2005), M.R. Kobalia (2007), etc., have studied the consequences and proposed strategies for overcoming rating plateaus. Some of these strategies are outlined in works such as Jonathan Rowson's "The Seven Deadly Chess Sins," Mark Dvoretzky's "Textbook of Chess Strategy," Jacob Agard's "Calculation," and Gary Kasparov's "My Great Predecessors."

This research aims to investigate at what levels stagnation occurs most frequently. By understanding the distribution of rating stagnation, we can gain insights that help in future preparation. This study explores several factors contributing to plateaus, including the inherent complexity of chess, the psychological impact of personal bests, and the cultural transmission of chess knowledge. Finally, it analyzes the distribution and characteristics of these plateaus to develop more effective strategies for players seeking to overcome these challenges and achieve chess mastery (Strittmatter et al., 2020).

### II. METHODOLOGY

This research analyzed the occurrence of rating stagnation by examining two blitz rating groups (2000-2100 and 2400-2500) of chess players on the Lichess online platform. The information was collected on December 14-15, 2024. Both groups consisted of 50 players.

Data of 100 players were collected on December 14-15, 2024, on the online chess platform Lichess. The players were divided into two groups of 50 each:

- Group 1: Blitz rating between 2000 and 2100 ("advanced" level).
- Group 2: Blitz rating between 2400 and 2500 ("expert/master" level).

Data Collected:

- Player URL
- Blitz Rating
- Registration Date
- Blitz Games Played
- Average Opponent Rating
- Percentage of Wins, Draws, and Losses
- Disconnections
- Highest and Lowest Rating

We chose blitz ratings because of their popularity, availability of information, and faster feedback. To find the difference in stagnation occurrence, the main focus was on the comparison of win, draw, and loss percentages between the two groups.

Additionally, a survey was conducted on December 16, 2024, with 60 amateur players to gather qualitative insights into their experiences with rating plateaus. The survey explored the relationship between the age players started playing chess, their FIDE rating, and the rating level at which they experienced plateaus.

### III. RESULTS

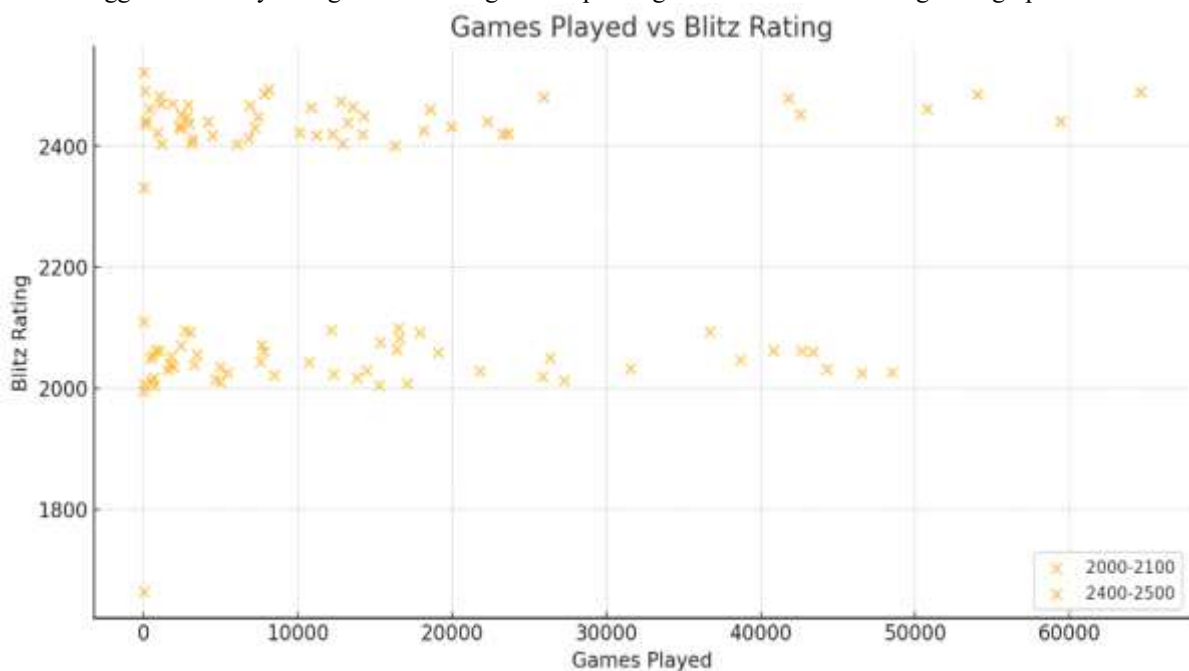
#### Findings from the analysis:

##### 3.1 Quantitative Analysis:

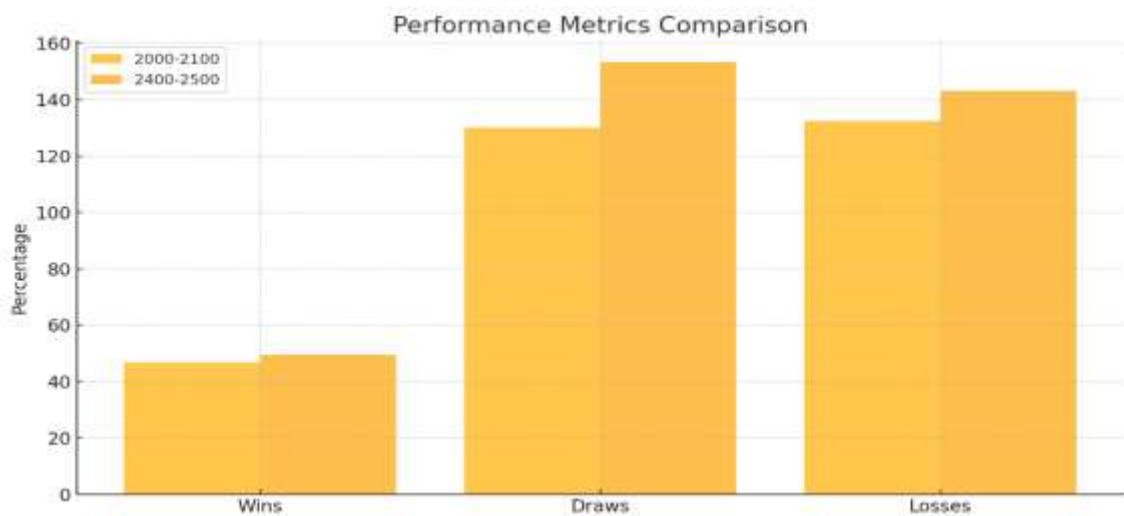
1. Group 1 (2000–2100 Rating): • Loss Percentage: 45.54% • Draw Percentage: 5.1% • Average Games Played: 1650

2. Group 2 (2400–2500 Rating): • Loss Percentage: 38.32% • Draw Percentage: 8.72% • Average Games Played: 850

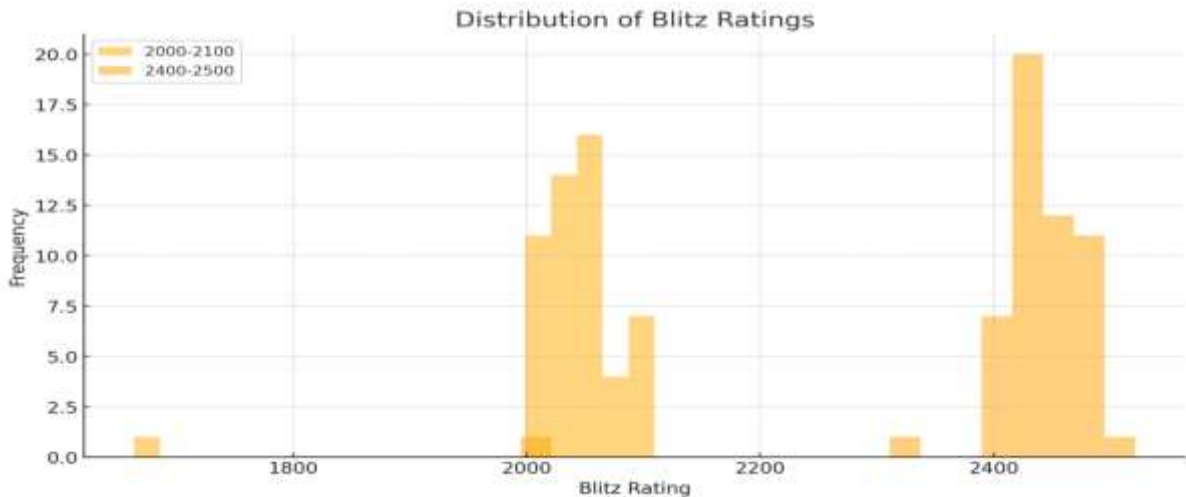
Lower-rated players have a higher loss percentage and need more games to reach their highest rating, which suggests that they face greater challenges in improving their skills and breaking through plateaus.



Games Played vs Blitz Rating



Performance Metrics Comparison



Distribution of Blitz Ratings

### 3.2 Survey Insights:

- 91% of participants experienced a plateau.
- 58% experienced plateaus at a 2000+ FIDE rating.
- 33% experienced plateaus at a 1600+ FIDE rating.

## IV. DISCUSSION

The analysis highlights that there are different challenges faced by players at different levels:

- Lower-rated players (2000–2100): Struggle with fundamental skills such as tactical vision, endgame techniques, and strategic planning, which results in a slower rate of improvement.
- Higher-rated players (2400–2500): Deal with challenges like refining decisions, expanding chess knowledge, and more competitive opponents. While more consistent, they still face psychological hurdles.

These results suggest that targeted training methods should be unique for chess players of different levels. Focusing on fundamental skill development is crucial for lower-rated players. For higher-rated players, emphasis should be placed on advanced strategy, decision-making, and maintaining psychological resilience.

## V. LIMITATIONS

While there are valuable insights from this study, it is essential to acknowledge certain limitations:

1. Sample Selection: Data were collected from a single platform (Lichess) and focused only on blitz games, which may limit generalizability to other time controls.
2. Self-reported Data: Survey responses may have inaccuracies or biases.
3. Player Activity: Some accounts might be used by multiple players.

Future research should include data from various platforms and time controls, along with qualitative methods like interviews.

## VI. CONCLUSION

This research sheds light on the dynamics of rating plateaus in chess. It reveals that players in different rating groups face distinct challenges. Lower-rated players are particularly vulnerable to prolonged stagnation because of fundamental skill gaps, while higher-rated players struggle with advanced strategic improvement and adaptation.

Targeted training methods tailored to these unique challenges can help players overcome stagnation. A multifaceted approach—combining deliberate practice, in-depth game analysis, and psychological resilience—is essential for consistent progress to achieve chess mastery.

## VII. LITERATURE REVIEW

Existing literature suggests various strategies for overcoming rating plateaus, including deliberate practice, in-depth game analysis, expert guidance, and fostering a growth mindset. Renowned chess coach Ramesh RB emphasizes the importance of becoming a well-rounded player proficient in all aspects of the game (New In Chess, 2022). Future studies should explore these strategies in greater detail to develop comprehensive training frameworks.

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