

# Motivating Factors in Elite Chess Players: A Review

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*Received March 22, 2023*

*Accepted July 16, 2023*

*Electronic access August 15th, 2023*

Chess is a game which is surging in popularity due to popular culture such as shows like *The Queen's Gambit*, cheating scandals, and the recent COVID epidemic. As interest in chess grows, intrigue about the most successful chess players in the world has grown. A main question that exists is what motivates master level chess players to continue to play in tournaments since this requires sacrifices of time, money, and travel. This paper will seek to examine the literature on what the motivating factors are, including both intrinsic and extrinsic factors, in these chess players. There appears to be particularly limited information on what the extrinsic motivating factors are for master-level chess players. A questionnaire will be proposed that can be used for future research to further elucidate these factors in this elite group of chess players.

## Introduction

Chess is a game that has been around for hundreds of years and is a well-known game that is widely believed to simulate two sides in a war whose goal is to capture the opposite side's king. While it has always been an extremely popular game worldwide, its popularity has exploded recently,<sup>1</sup> likely due to several factors including its increased presence in popular culture due to the popular American Netflix series, *The Queen's Gambit*; the Hans Niemann cheating scandal<sup>2</sup> which has been widely covered in the press; and the recent COVID pandemic which contributed to increased interest in online chess streaming. As more people play chess, the top players are becoming more well known, with many questions about how these players achieve their status. One main question is what motivates master-level players and higher to continue to play chess since success in chess requires intense study and sacrifices of time and money, with resulting fewer resources to devote to other hobbies and pursuits, and time spent with friends and family. This paper will seek to review the available literature on both intrinsic and extrinsic motivating factors in these chess players.

## Current popularity

One of the oldest and most popular games in the world, chess is a game which is enjoying enhanced popularity at the present, perhaps more than ever in the past. Not only has the accessibility of chess grown, but also has its image improved dramatically. In part, this is due to players like Magnus Carlsen, currently the number one player in the world, who has altered the stereotype of the serious, studious chess player. Carlsen is a model for the international clothing brand G-Star<sup>3</sup> and represents a more glamorous chess player. The rise of

popular online chess sites and apps like chess.com,<sup>4</sup> Lichess,<sup>5</sup> and ICC<sup>6</sup> have made chess accessible on every computer and smartphone and people everywhere, from students to adults, can be seen trying to fit in quick games during the school and workday and during their free time. Sites like chess.com have risen to popularity following the rise of computing and artificial intelligence. This was spurred by the pivotal event in 1997 when Deep Blue, a computer system made by IBM, beat Grandmaster Gary Kasparov, the top player in the world at the time<sup>7</sup>. This remarkable feat stunned the world and marked a definitive point in history where a computer outsmarted a human in chess. Since then, humans have been playing chess online against computers as well as against each other. Chess games on these online sites and apps are more accessible than ever and can be played in as few as several minutes. As a result of this accessibility and minimal time commitment, chess is experiencing a surge in popularity.

## Chess ratings

Most players are familiar with the concept of chess rating. Chess rating in many ways determines one's status, as it reflects one's skill level, and it is easy to check both one's online and over the board (in-person) rating. While internet chess sites like chess.com can provide players with chess ratings, these can differ from one's over the board chess rating. Rating points that are used to determine official ratings and titles can be earned by playing in rated over the board tournaments where the results are entered by a tournament director certified by either the US Chess Federation (USCF) (for tournaments held in the US) or Fédération Internationale des Échecs referred to as FIDE (for tournaments rated internationally). These results are official and rating points are determined by the strength of the player and the outcome of the game. A win

**Table 1**

Title	Required FIDE Elo Rating
Grandmaster (GM)	2500
International Master (IM)	2400
Woman Grandmaster (WGM)	2300
FIDE Master (FM)	2300
Woman International Master (WIM)	2200
Candidate Master (CM)	2200
Woman FIDE Master (WFM)	2100
Woman Candidate Master (WCM)	2000

can result in significant increase in one's rating, while a loss will typically result in a decrease in one's rating. A draw is a situation where neither party wins or loses; depending on the strength of the opponent though, a draw can result in either a net gain or loss of rating points. The calculation for ratings can be found on the US Chess website<sup>8</sup> and the FIDE website<sup>9</sup>. FIDE games are governed by their own special set of rules<sup>9</sup> which must be followed closely or games can be disqualified. Chess titles are determined by chess rating and the acquisition of norms earned in norms chess tournament. Ratings systems are linear approximations. Chess rating points are accumulated gradually over time, with a provisional rating that is determined by the initial few games. With increased numbers of games, the rating transitions from a provisional rating to a regular rating. With continued wins, one's rating can gradually climb to levels where titles can be earned. Rating points are earned based on the outcomes of a game as well as based on the strength of the opponent played ie. more rating points can be earned by successfully playing stronger players with higher ratings. It typically takes months to years to earn a title such as National Master or Candidate Master. In the USCF system, the top title is National Master (USCF rating of 2200). The FIDE system is where additional titles can be earned, starting with Woman Candidate Master and ending with the top title of Grandmaster (see Table 1). Top players in the world are listed on the FIDE website monthly and are ranked from highest to lowest in the world. The same is true of the USCF system, which has numerous top player lists including those categorized by age and gender.

### Limited Access

Access to in person chess may be limited; while online access may be more widely available, rated over the board tournaments may be less accessible. This may be in part due to lack of knowledge and access, as it is not a pastime that is widely covered in media or broadcasted like basketball and football, nor is it an activity that is offered widely in schools. Location may be an issue, as over the board tournaments may not be

available everywhere, particularly in rural or sparsely populated areas. In addition, over the board rated chess games may not be widely advertised. The casual chess player may primarily play chess online at sites such as chess.com. Chess.com currently boasts over 20 million members and represents at least some of the nearly 600 million people believed to play chess around the world<sup>10</sup>.

### Costs, Time Commitment

Entry fees for rated tournaments can be high and may range from tens of dollars per tournament to as much as hundreds of dollars. However, frequently there are prize funds available where top winners can win prizes amounting to hundreds or even thousands of dollars such as the Sinquefeld Cup, where the prize fund in 2022 was \$350,000 and the first-place prize was \$100,000<sup>11</sup>. Rarely, events do not involve a prize fund and only award titles and norms. In addition, entry fees are typically waived for higher level players, typically for players with the GM or IM title, but occasionally starting with Master level players. The waived entrance fee is sometimes deducted from the prize won. In addition, there is a significant time commitment in participating in tournaments, as many tournaments take place over several days with one or two rounds daily, with each possibly lasting up to five hours long. This requires a time commitment necessitating absence from school, work, family, and personal time. This time commitment can limit participation in tournaments as other priorities may take priority over chess. Tournaments are typically held in various venues but are often centered in metropolitan areas or in locations across the US or even around the world. This involves travel which can be costly, time consuming, and inconvenient. Furthermore, hotel stays and eating out can add to significant overall expenses. Travel costs for guardians and family can add to the overall expense.

High level chess players, here defined as master-level (US Chess rating of 2200+ or FIDE Chess rating of 2000+) players and higher, continue to participate in tournaments, dedicating time and money to preparation and participation in tournaments. This involvement requires high-level dedication, with prioritization of the chess tournaments and their preparation above other commitments, including school, work, hobbies, family time, and time for socialization. The factors that are responsible for motivation for these chess players will be reviewed, including the literature describing both the intrinsic and extrinsic factors impacting these chess players.

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## Discussion

### Motivating Factors

Motivation has been described as being a central ingredient in a person's life, relating to "energy, direction,...and persistence" by Ryan and Deci<sup>12</sup> and is "at the core of biological, cognitive, and social regulation." Motivation is what propels people to set goals and engage in activities. Taking a closer look at motivation, it can be broken down into both intrinsic and extrinsic factors. Morris et al.<sup>13</sup> has described both intrinsic and extrinsic factors and describes intrinsic motivation as driven by internal drivers where the outcome is the activity itself. Intrinsic factors are non-tangible factors within a person that causes them to have internal drive and desire to strive for a goal. Extrinsic factors include tangible rewards like money, titles, and trophies.

### Intrinsic Factors

There are multiple intrinsic factors that may serve as motivating factors which may have relevance to chess players. These include flow, competitiveness and will to succeed, challenge, thrill seeking, self-determination, and desire to attain one's personal best. These factors, while not all proven in chess players, are likely reasons why many chess players continue to play chess. What is not known is whether these factors affect master-level players more so than other chess players, and which of these factors are the most relevant and play the biggest role in motivating these elite players to continue playing chess.

### Flow

There has been much discussed recently about the concept of "flow" in popular culture. This is a term that has been described by Mihaly Csikszentmihaly<sup>14</sup>, who described flow as a concept where a player or person engaged in an activity finds themselves completely immersed in a process. Flow is a state that is often cited as a reason why people are drawn to certain activities; Csikszentmihaly has specifically cited flow in chess, a game involving intense mental focus, as well as other activities requiring deep mental concentration and vigorous physical exertion such as basketball and rock-climbing. According to Csikszentmihaly<sup>15</sup>, characteristics of flow have been described as involving concentration on a limited field, in which skills can be used to meet demands, resulting in the ability to forget problems and create their own separate identity, while having control over their environment. As a result of these factors, there can be what he calls "transcendence of ego-boundaries," where one no longer distinguishes between one's self and beyond one's self. Master-level chess players

most likely experience some element of flow when deeply immersed in a game, particularly a game that lasts for several hours. The role of flow and chess can be further clarified through future research studies.

### Competitiveness, Will to Succeed

In a study by DeBruin et al.<sup>16</sup> researchers studied 81 adolescent chess players and assessed factors that led to some of the chess players becoming "dropouts," and not continuing to play chess. They showed that one's spirit of competitiveness as well as one's desire to succeed played a large role in deliberate practice in chess. Therefore, one's internal drive for success and competitiveness resulted in a direct correlation with deliberate practice. Deliberate practice is a term originally defined by Ericsson et al.<sup>17</sup> as "effortful activities" designed to "optimize improvement." These activities encompass specific focused study and practice designed to improve one's skill most effectively. This type of deliberate practice typically begins in childhood and expertise has been widely cited as the result of intense practice for a minimum of 10 years. Therefore, deliberate practice is essential to attaining elite status in any activity, including chess. A master-level chess player's level of competitiveness and desire to have a successful outcome are very likely to play a significant role in their motivation to continue to play chess. Future research can help to clarify the roles of competitiveness and deliberate practice in the success of Master-level chess players.

### Challenge

Losing games can often be discouraging and may sometimes be a reason why someone stops engaging in an activity. However, Abuhamdeh and Czikszenmihalyi<sup>18</sup> found that chess players with high intrinsic motivation were not adversely affected by losing. The explanation for this was that losing is often the result of difficult games; individuals high in intrinsic motivation enjoyed difficult games and placed high value on the experiences despite them being more grueling and demanding. This was demonstrated by one of the researcher's questions: "No matter what the outcome of a project, I am satisfied if I feel I gained a new experience."

In another study, Abuhamdeh and Czikszenmihalyi<sup>19</sup> demonstrated that the sense of challenge in situations like chess was of primary importance at both the subjective and objective level. The authors found that chess players enjoyed challenging games to a greater extent than those that appeared to be less challenging and that games against higher quality, superior opponents were more enjoyable than those against inferior opponents. Furthermore, games which were close, and likely more suspenseful, were more enjoyable than games which were "blowouts," in which the winner easily and

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quickly won their games. This speaks to the sense of excitement that chess players can often experience from these close games.

In a sense, chess games may be comparable to gambling, particularly when high entrance fees are involved. Instead of just a loss of money though, rating points are also at stake. In a study by McKenzie and Sher<sup>20</sup> that evaluated the attractiveness of gambling, participants who were offered a chance at only winning money found the activity moderately attractive. However, participants were then offered the option of a gamble in which there was a loss of 5 cents, which was a worse gamble in objective terms. Surprisingly, in this scenario, participants judged the gamble as more attractive. The researchers concluded that the small loss increased the affective evaluability of \$9, meaning that the potential gain was put in the context of a possible loss, rather than the original scenario of only a gain. In many ways, this is like what happens in rated chess games—there is a chance to both gain and lose rating points. This likely adds to the attractiveness of the game, since rating points are at stake, and these points and results are used to determine various chess titles, such as Grandmaster. While there is also a chance that one neither loses or gains rating points based on the strength of the opponent played, this is a less likely outcome. Thus, a sense of challenge is likely a key motivational factor in a master-level chess players continuing to play.

## Thrill Seeking

Seeking thrills may be a little-known reason that chess players are attracted to chess. Joireman et al.<sup>21</sup> showed that chess players scored higher on the Sensation Seeking Scale<sup>21</sup> as well as the Thrill and Adventure Seeking Subscale, which are two tests measuring sensation, thrill, and adventure. The results of this study indicate that chess players are not only thrill seeking but sensation seeking. Sensation seeking has been described by psychologist Marvin Zuckerman as a personality trait defined by the “search for experiences and feelings that are varied, novel, complex, and intense, and by the readiness to take physical, social, legal, and financial risks for the sake of such experiences<sup>22</sup>.” Players drawn to chess therefore may experience a sense of thrill and adventure while playing in an environment which is a much safer environment than that of riskier activities such as mountain climbing and snowboarding. This sense of thrill is likely a draw to chess players and may be particularly true of master-level chess players who are looking for and taking place in games that are more complex than those of beginner chess players.

## Self-Determination

The theory of self-determination and its relationship to intrinsic motivation has been described by Ryan and Deci<sup>23</sup> Self-determination has been widely defined as one’s ability to make choices and live one’s life. Deci described three key factors for self-determination: autonomy, relatedness, and competence. By this, the author stressed the importance of independence, being a part of a larger community, and showing an ability to execute a skill. These three key factors strongly contribute to intrinsic motivation. The authors described intrinsic motivation as the inherent tendency to “seek out novelty and challenges, to extend and exercise one’s capacities, to explore, and to learn<sup>23</sup>.” Self-determination is likely an important component of the intrinsic motivation in Master-level chess players. This is because the factors of autonomy and competence may be particularly relevant, since Master-level players are performing at advanced levels and are demonstrating their high-level skills. Furthermore, master-level players may enjoy the relatedness, or being part of a select community of top chess players. Future research may help to further clarify the exact role that self-determination plays in the success of elite chess players.

## Personal Bests

Setting one’s record for peak performance appears to be a motivating factor and those that achieve their personal best may then no longer want to participate in chess<sup>24</sup>. In a study examining 133 million online chess games, the authors examined chess players and found that they were focused on setting new personal best ratings. This desire affected whether they played and how much effort they exerted during games. Once they achieved their peak rating, they quit. The authors reported the players put in extra effort to set new personal best ratings and quit once they achieved those peak ratings. Seeking a peak rating may be a considerable factor in master-level chess players who are seeking a particular chess rating goal or title such as Grandmaster. Once this goal is achieved, there may be less interest in continuing to play in chess tournaments.

## Extrinsic Motivation

### Rewards

The research on the role of extrinsic motivation through rewards such as titles, money, ranking, and fame on motivation levels specifically in master-level chess players is lacking. This area needs further exploration to determine the impact of extrinsic motivation in this group of elite players. Various titles can be awarded to winners including FIDE titles like Grandmaster and International Master which are earned through required norms chess tournaments (where one must

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accumulate wins in order to achieve such titles). Money rewards are usually very attractive to players and is something that is needed to continue to fund continued chess play. Lastly, status as an extrinsic motivating factor can be considered. Status can range from being known as the best player locally to being the number one player in one's state or country. For example, both US Chess and FIDE maintain top player lists, where players are ranked by rating. This status can be attractive to many players and may motivate them to keep playing to maintain their high status. When playing, what is at stake in part is the ranking of the player on these lists, with both a rise and drop in rank in these lists possible. The potential for loss or gain of status is reminiscent of the affective evaluability described by McKenzie and Scher<sup>20</sup> and may be another reason why playing in rated tournaments is desirable to chess players. However, the specific role of extrinsic motivating factors in master-level chess players is not well described in the literature.

Rewards and their effect on intrinsic motivation have been studied in other scenarios though. Cameron<sup>25</sup> showed that rewards helped contribute to intrinsic motivation. In this study, participants were rewarded in various scenarios: they were rewarded for achievement while learning an activity, for performing at a specific level on a test, or for both. The researchers concluded that achievement-based rewards during learning or testing increased participants' intrinsic motivation and that rewards may result in enhancement of both internal and external motivation. Similarly, Pierce et al.<sup>26</sup> found that rewards could serve as a powerful motivator. In their study, rewards were given when participants met increasingly demanding performance standards (progressive) versus an unchanging standard (constant). In this study, college students were randomized to one of two groups. In the progressive group, students were asked to solve 1, 3, and 5 puzzle problems on each of 3 trials, while students in the constant group were asked to solve 3 problems. Half the students were given \$1.00 for each correctly solved puzzle while the other half received no reward. The researchers found that people in the progressive reward group spent more time on the puzzles while in a free-choice session, where they could choose to work on the puzzles if they wished. The authors concluded that rewards linked to achievement of challenging standards (or to mastery) may increase people's intrinsic motivation.

### **Controversies of Extrinsic Rewards and Intrinsic Motivation**

There has been much controversy surrounding the use of extrinsic rewards, as some authors have suggested that external rewards can lessen one's intrinsic motivation. For example, Deci<sup>27</sup> has suggested that some external rewards can harm intrinsic motivation. Specifically, in an experiment involving

groups of students who were given money rewards, verbal praise, or no reward, he found that money rewards resulted in an apparent decrease in intrinsic motivation while verbal praise resulted in an increase in intrinsic motivation. The author theorized that this may be the result of the role of money in our society. As a result, those who receive money rewards may cause recipients to undergo a "cognitive reevaluation" of the activity that was previously intrinsically motivated. Once extrinsic factors like money are removed, there are no longer intrinsic motivating factors. Interestingly, rewards such as social approval and praise did not have this same negative effect on intrinsic motivation and instead resulted in enhanced intrinsic motivation. Money in our society represents many different things, including payment for jobs, and therefore its use as a reward appears to be less effective than non-material rewards like verbal praise.

Other authors have reported mixed results as well when studying the effects of extrinsic rewards on intrinsic motivation. For example, early studies such as the one performed by Pritchard et al.<sup>28</sup> concluded that extrinsic rewards can have an adverse effect on intrinsic motivation by influencing one or more of the variables that influence intrinsic motivation. However, the author concluded that while extrinsic rewards could decrease a determinant of, or factor impacting, intrinsic motivation such as self-determination, it did not directly diminish intrinsic motivation itself. Therefore, the author concluded that there was not necessarily an inverse relationship between extrinsic reward (such as money) on intrinsic motivation. Similarly, Cameron<sup>25</sup> has argued against the assertion that external rewards negatively impact intrinsic motivation; the author states that when there are no obvious extrinsic factors, we "infer intrinsic motivation" but this can be a false assumption. Cameron believes that extrinsic rewards can be positive and very powerful in certain settings, such as in the case of inspiring children who are from lower socio-economic backgrounds.

The relevance of extrinsic rewards and intrinsic motivation specifically in elite chess players has not been well described in the literature, and future research could clarify the relationship of these factors in this specific population.

### **Other Considerations**

While this paper seeks to identify the exact factors that motivate elite chess players, it may be that the game of chess itself demands specific motivation and characteristics such as tenacity and determination and eliminates people without these. This may be due to interpreting the literature through the lens of survivorship bias<sup>29</sup>, which is a logical error in which attention is focused on those who have "survived" a selective filter, which can lead to inaccurate conclusions. An example of this would be that only highly motivated individuals survive

long and taxing competitions. Therefore, only these certain individuals choose to play in such tournaments. Another potential drawback is using reverse causality<sup>30</sup> to assume that players are motivated to achieve high status and high chess ratings while achieving these levels necessitates the motivations described. This reverse causality, i.e. those with high chess ratings are inherently motivated, high level chess players. Therefore, this assessment needs to be considered when analyzing the motivating factors in elite chess players.

Limitations of future research include assessing the role of social networks in all societies. This is because in some societies, chess is played routinely as a leisure pastime, and there are no formal ratings to rank people. It is possible that top players may be recognized more informally. Therefore, it is difficult to assess whether those in these social networks are affected by extrinsic factors due to the lack of a formal rating and ranking system.

## Conclusion

In conclusion, as chess gains popularity, there are many questions as to what it takes to be successful in chess and be an elite master-level player. There are multiple intrinsic and extrinsic factors which may influence master-level chess players to continue to participate in chess tournaments. Intrinsic factors include flow and sense of challenge, while extrinsic factors may include rewards like money and titles. However, further studies are needed to identify both the specific intrinsic and extrinsic motivating factors for master-level chess players, as well as to identify which of these factors are the most impactful in these players continuing to participate in tournaments. In particular, there is little known on the role of extrinsic motivating factors in this group. The specific factors impacting these chess players to continue to pursue tournament play, which requires significant commitments of time, energy, and money will be identified through the administration of a proposed questionnaire which will be distributed to master-level and higher chess players (see Appendix A). This questionnaire will form the basis for future research that will further elucidate the specific factors influencing elite chess players to continue to play in chess tournaments. This is an area which has previously received little attention in the literature, and this questionnaire and proposed research seeks to fill in the gaps of knowledge in this area.

## Acknowledgements

I would like to thank my family for supporting me in my chess endeavors and my research.

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## Appendix

# Questionnaire for Master-Level Chess Players

A survey to determine motivational factors in elite chess players

\* Required

1. When were you born? (please list birth year) \*

2. What is your current age \*

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3. What is the highest level of education you have attained? \*

- ☐ High school
- ☐ Bachelor
- ☐ Master
- ☐ PhD, MD, JD, MBA
- ☐ Other- fill in

4. How old were you when you first started playing chess? \*

5. Who first introduced you to chess? \*

- ☐ Family
- ☐ Friends
- ☐ School
- ☐ Educational class/club
- ☐ Online website
- ☐ Other-please fill in

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6. In childhood, where did you primarily play chess? Check all that apply \*

☐ Chess club

☐ School

☐ Home

☐ Online

☐ Other

7. How many years have you been playing chess competitively (in tournaments)?

\*

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8. What are the reasons you like playing chess competitively? Check all that apply. \*

- ☐ Prize Money
- ☐ Norms/Titles
- ☐ Fame
- ☐ Status
- ☐ Chance to improve rating
- ☐ Competition/desire to succeed
- ☐ Sense of thrill
- ☐ Sense of challenge
- ☐ Other - fill in

9. What are your current US Chess and FIDE ratings? Please specify each (if applicable) \*

10. What is your peak rating for chess? \*

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11. How long ago did you attain this peak rating? \*

12. What are your future goals for chess (certain titles, gains in rating points, etc)? \*

13. How many hours a week do you spend studying and practicing (puzzles, reading books, practice games - **NOT** playing in tournaments) chess? \*

14. How do you play chess? Check all that apply \*

☐ Chess club

☐ School

☐ Online

☐ Other

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15. Referring to question 14, please elaborate how much time you spend each week or month in each of the previous activities? \*

16. Do you attend over the board tournaments? \*

☐ Yes

☐ No

17. How often do you attend over the board tournaments? \*

☐ Daily

☐ Weekly

☐ Monthly

☐ Seasonal

☐ Yearly

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18. What are the main reasons you attend tournaments? Check all that apply

\*

- ☐ Prize Money
- ☐ Norms/Titles
- ☐ Fame
- ☐ Status
- ☐ Rating Points
- ☐ Competition/desire to succeed
- ☐ Sense of thrill
- ☐ Sense of challenge
- ☐ Other-fill in

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19. Flow is a state where you are completely immersed in what you are doing. How often do you experience flow while playing chess? \*

- ☐ Rarely
- ☐ Sometimes
- ☐ Occasionally
- ☐ Often
- ☐ Always
- ☐ Never

20. Are you motivated by the players around you? \*

- ☐ Yes
- ☐ No
- ☐ Maybe-please explain

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21. If your rating went down or stayed the same for a long time, would you be likely to quit playing chess? \*

- ☐ Yes
- ☐ No
- ☐ Maybe - please explain

22. If you attained your peak rating, would you then quit chess? \*

- ☐ Yes
- ☐ No
- ☐ Maybe- please explain

23. Do you enjoy games against lower rated people as much as games against higher rated people?

\*

- ☐ Yes
- ☐ No
- ☐ Maybe- please explain

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24. What is most important? \*

- ☐ That you win or lose
- ☐ That you played a good game
- ☐ Both equally important

25. What matters to you most in a tournament? \*

- ☐ Press coverage/public recognition
- ☐ Money
- ☐ Trophies
- ☐ Titles
- ☐ Ratings points
- ☐ Other-please explain

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26. How important is winning money to you? \*

- ☐ Extremely important
- ☐ Somewhat important
- ☐ Neutral
- ☐ Somewhat not important
- ☐ Extremely not important
- ☐ Very important
- ☐ Not so important

27. Do you prefer invitational tournaments over those open to everyone? \*

- ☐ Yes
- ☐ No
- ☐ Maybe

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28. Does it matter if you have previously lost/won against an opponent? \*

- ☐ Yes
- ☐ No
- ☐ Maybe

29. If you lost previously, are you determined to win the next game? \*

- ☐ Yes
- ☐ No
- ☐ Maybe

30. When you go to a chess tournament, do you feel that other chess players recognize you as a good player with high status? \*

- ☐ Yes
- ☐ No
- ☐ Maybe

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31. Do you think other chess players know who you are because of your chess accomplishments? \*

- ☐ Yes
- ☐ No
- ☐ Maybe

32. Would you be willing to have a follow up with the questioner? \*

- ☐ Yes
- ☐ No
- ☐ If yes- please provide name, phone, & email address:

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