

What's a mistake?

Some reader might consider this a stupid question. A mistake is when you did something wrong, what else should it be? In chess, however, it is not that simple. When I was preparing the survey I asked a friend to randomly analyze some u10 games and evaluate them with specific regard to mistakes, in order to develop evaluation patterns based on that. Although a strong player himself, he despaired of the task, which came as a big surprise to me. But when I started working on it myself I immediately realized that the classification of mistakes causes a lot of trouble and provokes many questions.

Is it a mistake when you did something wrong, but your level of knowledge and experience would not have allowed you to do better? If the answer is yes, then even grandmaster games are full of mistakes, since the computer sets the absolute limit. Accordingly, we have to consider mistakes in relation to the playing strength. Barring some top talents, you can not expect children aged 7-10 to have a horizon that exceeds a rating of 1800 in both playing strength and experience. Miscalculations beyond this level (or even lower) can hardly be called "mistakes" for these children.

The consequences of mistakes might be different. An unfortunate king's move in the endgame may lose the game, while blundering the queen in a dominant position might not have any impact at all. Still, this would render the mistake classification rather complicated, which is why we agreed on the following ranking:

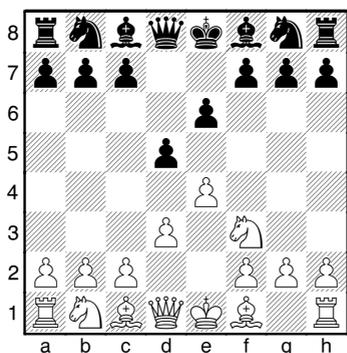
- **1 Point** for mistakes equal to the value of a pawn;
- **3 Points** for mistakes that cost a minor piece or the exchange;
- **5 Points** for mistakes that cost a heavy piece; and
- **5 Points** for mistakes immediately losing the game / leaving out a direct win;
(Such as overlooking checkmate or exchanging into a lost endgame).

Given the large amount of analyzed games, the statistical balance should ensure that the mistake classification, if not for any individual case, should be correct overall. The same goes for swings caused by the different assessment of the respective evaluator. Sometimes it is not easy to come up with a precise classification, requiring the number of points to be rounded up or down. Yet, here too the deviations should balance out each other.

Another issue is the evaluation of "**soft moves**". These are small inaccuracies which do not directly lead to the loss of material or immediately influence the outcome of the game, but deteriorate the position long term (especially if further inaccuracies are committed) eventually leading to a substantial loss. For example: unfavorable placement of pieces, creation of weak squares or backward pawns, implementing the wrong plan or having no plan at all. These "soft moves" were not classified as mistakes by us, as most of the opponents in this age group are not able to exploit them.

Likewise, weak or imprecise play in the opening has not been labeled as a mistake as long as it did not lead to direct material loss or substantial problems. It is remarkable however, that apparently some of the players are not familiar with very basic things.

Here are some examples for mistakes that were not graded:



● after 3.d2-d3

(755) – (1156) GER-ch u10 girls Willingen 2016

Small inaccuracies, especially in the opening, were not counted as mistakes. This is an example.

After **1.e2-e4 e7-e6 2.♘g1-f3 d7-d5**

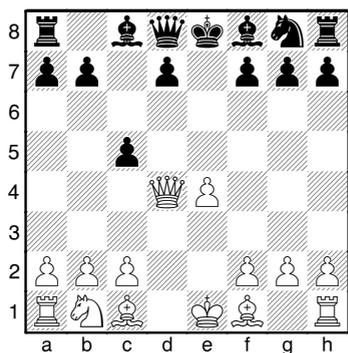
White played the weaker **3.d2-d3** (*D*)

[normal would be 3.e4xd5 e6xd5 4.d2-d4 when the game transposes into the French Exchange Variation; or 3.e4-e5]

3...g7-g6

[3...d5xe4 4.d3xe4 ♔d8xd1+ 5.♕e1xd1 ♘f8-c5 6.♕d1-e1 gives Black a comfortable game, but was not played in the next two moves, either.]

4.g2-g3 ♘f8-g7 5.♘f1-g2 ♘g8-e7 etc.



after 5...c7-c5

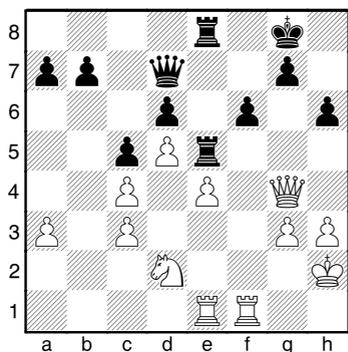
After the moves

1.e2-e4 e7-e5 2.♘g1-f3 ♘b8-c6 3.d2-d4 e5xd4

4.♘f3xd4 ♘c6xd4 5.♔d1xd4

5...c7-c5 (*D*)

Is a bad move as it creates a backward pawn on d7, leaving a permanent weakness behind. Even though this should be a known fact, moves like that were not considered as mistakes.



●

(--) – 1240 wycc u8 boys Batumi 2016

According to the computer **32...♔d7xg4 33.h3xg4** was correct here, when the evaluation shows about 2.5 in White's favour.

However, in the game Black avoided the exchange assuming (rightly so among humans) his chances without queens would even be lower, and played **32...♗d7-f7**, which worsened his position to -3.5.

Black chose the correct strategy when playing humans, even though this further deteriorated his position objectively. Therefore it was not considered a mistake.

Likewise, weak play in already lost positions did not count as a mistake. For example, it's not a mistake to blunder a pawn which soon would have been lost anyway. The more so as the inferior side might have tried to get rid of material deliberately in order to work out a stalemate trick. Another thing is, however, if pieces were blundered in a likely lost endgame, since these pieces might put up more resistance.

Similar to that, slower winning methods were not considered as mistakes. It does not matter if you checkmate your opponent sooner or later (if you see a clear checkmate e.g. in 4 moves, there's no reason to search for a quicker one) or if you win material in the fastest way possible, especially when time pressure and exhaustion have an impact. Overlooking elementary mates, however, are rated as mistakes – a straightforward mate in 2 or 3 moves should be seen by any player at any time.

At the end of each evaluation we get

- **The number of mistakes** committed or opportunities missed;
- **The “mistake points”**, that is the total of points resulting from the different classifications of mistakes; and
- **The “moves per mistake ratio“** (M-p-M). Here, the total of all moves made by a player in a tournament is divided by the number of mistakes, e.g. 550 moves divided by 17 mistakes equals 1 mistake per 32 moves.

However, these different categories for assessing mistakes have only a limited comparable value due to the following reasons:

The individual playing style influences the frequency of mistakes. If you risk little, playing a drawish position for a long time, then a single mistake might cost you the game. In that case, you get only a few “mistake points” and a good “moves per mistake ratio”. If you are a fighter, playing risky chess all the time, you might commit a higher number of mistakes, get more “mistake points” (e.g. by way of an incorrect piece sacrifice) and, accordingly, a worse M-p-M, especially if the game was short.

Another reason is that most of the young players play on till checkmate even though the position is absolutely hopeless. This increases the number of moves considerably, while mistakes can hardly be made any longer or, as mentioned before, are not rated as such.

Wasting time and energy by dragging the games into painful agony is something that coaches should prevent from early on. It's a waste of time and energy and often rubs only salt in the wounds. But often you here expressions like *“No one has ever won a game by giving up”*. Still, it is a plain fact that playing on with a naked king has never brought victory to anyone! The chance for a stalemate is insignificantly low. Neither the roughly 2.500 analyzed games nor the tournaments they were played in produced any such cases, as was verified by the ChessBase search function!

An exact mistake profile for each player can only be created individually. The mentioned criteria, however, provide a nice general overview, allowing an approximate classification and expectation for success. We will have a deeper look into this when evaluating the results of the survey.

The tournaments chosen for our research

Given the big amount of children's tournaments, one might assume that there is plenty of material suitable for analysis. Unfortunately, this is not the case. Only in a few tournaments of the youngest age groups the games are recorded completely and regularly. The German youth championship u10 (GER-ch u10 in short) is the only competition that has been fully recorded since 1999. Actually even longer, because before it had been held for many years as the u11 Championship.

Even youth world championships are rarely documented completely. Often only the first 20 boards are recorded, or the recording comprises only the opening phase and the early middle game. Looking at the world championships in the Greek city of Porto Caras in 2010 for example, there were only 98 games of the u10 and 102 games of the u12 competition published online, which makes any sort of evaluation pointless. In fact the last world championship where all the games were completely recorded was the one in Al Ain (United Arab Emirates) in 2013. As a result, our basis for starting the research was less abundant than expected, and includes:

GER-ch u10 Willingen 2016 boys and girls; 11 rounds each;

GER-ch u12 Willingen 2016 boys and girls; 11 rounds each;

WYCC u8 / u10 Al Ain 2013; boys and girls; 11 rounds each;

WYCC u8 / u10 Batumi 2016 (Georgia), boys and girls; 10 rounds each.

The tournaments in Batumi had also been played with 11 rounds, but from the 11th round only the first ten boards were published, possibly because they were played on digital boards.

It would be too laborious, and also unnecessary, to evaluate thousands of games. Therefore we focused on 2 to 4 rounds what provides a sufficient statistical basis. In the GER-ch competitions this corresponds to 44.4% of games played, while in the world championships (with far more participants) this equals 22.2%.

All these tournaments were played in the so-called "Swiss System", which means that at the beginning players of very different quality are paired against each other. In a field of 100 players, No 1 is paired against No 51, 52 – 2, 3 – 53 and so on. Other elements that particularly influence the first rounds are travel stress, acclimatization issues and nervousness, which usually affects the inexperienced players more, leading to many quick losses. In the last rounds of the tournament, however, exhaustion, frustration and disappointment could come in and have an impact on the quality of play. Some might also adapt their playing strategy to the tournament situation (like playing for a draw in order to reach/keep a certain position).

With that in mind, we evaluated the 3rd, 4th, 7th and 8th round of the German championships. These competitions were played in double rounds, and we wanted to find out if there were noticeable signs of tiredness in the afternoon rounds.

As for the world championships with only one round per day and even a rest day in-between, the 3rd and the 8th round was evaluated.

These rounds saw pairings of roughly the same level, while disturbing external factors should not be present any longer.

By way of comparison, the 3rd and 8th round of the GER-ch u12 boys / u12 girls in Willingen 2016 was also evaluated, as was a number of games from players of any age (though mostly adults) with a rating of 1500 taken from an Open tournament.