Tampere University

Benjamin Puha

"EVERYTHING SEEMS TO BE MORE FINAL IN LIVE MATCHES"
Player Experience of Over the Board Chess and Digital Chess

ABSTRACT

Benjamin Puha: EVERYTHING SEEMS TO BE MORE FINAL IN LIVE MATCHES: Player
Experience of Over the Board Chess and Digital Chess
Master's Thesis
Tampere University
Master's Degree Programme in Game Studies
April 2023

In its long history, chess has seen various changes. The most recent change being the digitisation of chess, which has transformed the beloved tabletop game to a digital one. Today, chess is played by millions and most commonly it is played over the board or digitally. Despite this, whether the player experience of digital chess differs from the one in over the board chess has not been studied.

Thus, the objective of this thesis is to determine whether the player experience of over the board chess is different from that of digital chess and if so, what are the differences in the player experience. An online survey was conducted to collect data, and the data was in turn analysed with the method of thematic analysis.

The findings show that most chess players think the player experience of the two chesses is different. A small section of the respondents feel that the experience is identical. Furthermore, those who find a difference report a variety of differences which can be categorised into five themes. In general, the respondents prefer the experience of over the board chess more than the digital version as they see it more social and competitive. Digital chess, for most, is lacking in the social aspects and has thus the worse experience. However, digital chess is often seen as the optimal version for faster games of chess.

Keywords: Chess, game studies, board games, player experience

The originality of this thesis has been checked using the Turnitin OriginalityCheck service.

Table of Contents

1 INTRODUCTION

> Historically chess must be classed as a game of war. Two players direct a conflict between two armies of equal strength upon a field of battle, circumscribed in extent, and offering no advantage of ground to either side. (Murray, 1913)

A game of *chess* is played by two players, the other controlling the white pieces and the other the black pieces. Both players have identical number of pieces, and both sets of pieces are placed on the opposite sides of the sixty-four square chessboard. The player with the white pieces always starts the game by moving one of their pieces, after which the players take turns. In all its simplicity the only aim in chess is to attack the opponent's king so that it can neither escape nor be defended. In such a case, the player whose king is under attack is checkmated and said player loses. The basics of chess are simple enough for a young child to grasp, yet still chess is a game of massive depth and complexity.

Chess today is played in various forms, the two most populous of which are the traditional physical form and the 'budding' digital form. Still the game itself is effectively unchanged. From the first view it seems that experience of playing chess over the board or digitally is identical, as the rules, pieces, and the board are the same – although the latter two are represented differently. On the surface they are the same or at the very least nearly the same. The game itself is unchanged, but are the playing experiences of the two vastly different? If so, what kinds of differences do chess players find between them?

Players of various games and their experiences have been studied from numerous viewpoints in various disciplines (e.g., Martoncik & Loksa, 2016; Birk et al., 2017; Costello, 2018). Similarly digital board games, which digital chess certainly is, have been studied but not from this angle. Randall (2011), for example, wrote a chapter on online boardgames for a book and Rogerson et al. (2015) discuss the methods with which boardgames can be digitised. Yet the way chess players experience over the board play versus online play has not been explicitly studied. Though, undoubtedly the differences of the two chesses have been discussed, in one way or another, online on various forums and chats as well as in real life by different chess enthusiasts.

We hope to remedy the situation, at least partly. There are more chess players today than ever before and determining the feelings of all of them would be impossible. Nevertheless, this thesis aims discover the differences in player experiences when playing over the board chess and when playing digital chess.

As it would be impossible to discuss the differences without determining whether the experiences differ, the first research question is as follows: Is the player experience of over the board chess different from digital chess?

The second research question is formulated as: What are the differences in the player experience of over the board chess and digital chess?

Various aspects that affect player experience must be considered before a conclusion can be reached. One has to consider, for example, whether the physicality of over the board chess is important and if the possibilities presented by the digital user interface make a difference. Or whether it is easier to conceptualise moves in a digital space or in a physical one. Whether one form of playing is more engrossing than the other and so forth. We will approach the research questions by analysing an online survey that was conducted for this thesis.

By studying these questions, the thesis aims to fulfil three purposes. Firstly, it simply hopes to improve our comprehension of the player experience of these two versions of chess. Secondly, it attempts to fill the apparent gap in the research of chess player experience. Finally, the thesis aims to provide important insight which can be used for further studies. As we study the player experience of a tabletop game and of a digitized tabletop game, the findings could provide pointers for studies of the player experience in tabletop games, digital games, or digitized tabletop games. Inadvertently we will explore whether the digitization of chess has been successful, or at least whether the player experience has been preserved, improved, or damaged. As such, the findings could prove beneficial for future attempts to digitize board games.

In this thesis physical chess is most often referred to as over the board chess, or *OTB* for short. Occasionally it might be called live chess as well. Digital chess on the other hand is sometimes called online chess interchangeably.

The structure of the thesis is as follows. In the next chapter chess history is concisely discussed. Additionally, the ways in which chess has been researched within game studies is explored as is the definition of player experience. The third chapter in turn will present both the data collection method, online survey, and the method of analysis, thematic analysis. The data collected will also be presented. The fourth chapter will present the results of the analysis through the themes created whereas the fifth chapter will discuss

the findings, limitations, and topics for future research. Finally, the sixth chapter will serve as conclusion.

2 BACKGROUND

Before diving into the topic of this thesis and its research questions more fully, we will look at chess in detail and discuss what we consider player experience to mean. For this background section, we will first briefly mention some of the various changes' chess has gone through to become the game it is today. Additionally, we will discuss the different time controls used in chess today as well as the differences between physical and digital chess. How game studies has approached chess will also be deliberated. Finally, the definition of player experience is discussed.

2.1. The Evolving Game

The long history of chess is remarkably well preserved and studied for a game. Several books and writings about chess have survived for centuries, as have records of chess matches played hundreds of years ago. It has survived longer than games generally do, being a staple in game collections for hundreds of years across the world. Although both the rules and the pieces of chess have seen large changes over the centuries.

The modern game is often traced back to *chaturanga*, a game of Indian origin over a thousand years old which already had the checkered board with earliest written mentions originating in the 7th century. In his book, titled *A History of Chess* (1913), chess historian H.J.R Murray illustrates how the game at first travelled from India to Persia, from which it moved to the Arabian Peninsula (Murray, 1913). In the 9th and 10th centuries chess was popular in the Arab world, and by the 11th century at the latest, chess had landed on the shores of Europe (Sharpels, 2017). However, Murray argues that knowledge of chess had reached Europe earlier, perhaps in the 10th century or even before**.** Over the centuries, it transformed step by step to chess as we know it today.

Modern chess originated in Europe due to various developments in the rules of the game, but in the beginning, possibly for even a century, European chess was the same as the one played in Arabia (Murray, 1913). Back then, there were numerous variations of chess played quite like there are numerous card games played today and rules could vary from country to country. Unfortunately, the literature of chess had not yet reached its heights, and as such little is known of the various types of chess played in Europe before the modern game. It is known, however, that already by the 13th century calls to speed up the game were gaining volume (Eales, 1985).

For example, a common addition to rules was to give the pawn the modern right of moving two squares instead of one when first moved. Some tried to speed up the game by adding dice to it (Murray, 1913; Eales, 1985). In northern Europe, a variation was seen in which some of the pieces were place further up the board at the start of the game (Eales, 1985). Despite these variations, the game was remarkably similar to the one played in Arabian Peninsula centuries before. Differences started to appear when European chess started to evolve into modern chess and the game played in Arabia remained the same (Murray, 1913, p.394).

Murray neatly places the start of modern chess in the late 14th or early 15th century in Europe. He attributes the start to a change that saw the queen piece become what it is today (p.776). Chess became more active and straightforward as the new queen became a dominant force with its ability to move any number of squares diagonally, horizontally, or vertically. Suddenly new tactics, such as Scholar's Mate and Fool's Mate, could end the game in a handful of moves. Promoting pawns became more important with the introduction of the new queen. The modern version was quicker and more unforgiving. All in all, the impact of the changes was enough to effectively create a new game, one first called 'the queen's chess' in Spain and Italy (Eales, 1985; Murray, 1913). Some changes were still to come, such as the current stalemate rule which was agreed upon in the 19th century (Murray, 1913) and the general standardization of chess rules in the 20th century (Eales, 1985).

Chess has stayed largely the same to this day, but perhaps the latest upheaval chess has gone through is the digitalization of it. The first attempts of creating a computer capable of playing chess were seen in the middle of the 20th century. By 1997 IBM's famous Deep Blue was the first computer to defeat the reigning world champion under tournament conditions. As of today, chess programs able to win against chess grandmasters are freely available and a handful of computer chess championships have been held. Professionals and enthusiasts alike use chess engines, programs that try to calculate the best possible moves in any given situation, to practice and study the game. Digitalization has also made it possible to now play online against opponents across the world in a large variety of chess variations.

The player base of chess has grown during the COVID-19 pandemic. As with most activities, chess was forced to move nearly completely online as lockdowns and restrictions were implemented across the world. Competitive chess was no exception, and

a record number of high-level tournaments have been hosted and streamed online in 2020 and 2021. During the pandemic large amounts of players started playing online and even more joined in when the hit series *The Queen's Gambit* (Horberg et al., 2020), telling a tale of a fictional chess prodigy, was released. At the end of 2020 Lichess.org, one of the more popular online chess websites, reported concurrent daily peaks of "over 110,000" players (Lichess, 2020). Similarly, common chess variation of rapid, which gives ten minutes per player to do their moves, had 407,698 players in just a week (Lichess, 2021). Another popular site in Chess.com reports a staggering 29,215,650 players for rapid – though they do not disclose how many of them are actively playing (Chess.com, 2021).

Chess has seen a mild resurgence over the last few years, potentially as chess has become more accessible. There are several websites that offer chess for free and most smart devices have a number of chess applications to choose from. Recent years have seen an influx of chess live streaming as well as content creation on sites such as YouTube. It seems as if the online possibilities of chess and the various variations found online have made the game more appealing to young players and beginners. It is clear that online chess is played by millions across various sites. Perhaps the various changes that have come with digitalization has grown the player base, or, more likely, the number of players has increased alongside the ever-growing number of people with access to internet.

2.1.1. Time Control

A traditional game of chess is played over the board with a good amount of time for players to ponder their next move. Some famous matches are known to have lasted for days, with the game halted while the players rested. Game 6 in the World Chess Championship 2021 lasted for over seven hours. However, this long and tedious way of playing is only one of the various options chess has to offer.

Chess has many variations to its name. Many of which are far from the traditional format and have changed the rules, pieces, or board. Some examples include *Chess960*, in which pieces are placed on random starting squares based on certain rules, and aptly named *Losing chess* where the players aim to lose all their pieces. Variations such as them are, for all intents and purposes, different games all together.

Competitive chess is played with conventional rules of chess, and the only variation seen in competitive chess comes from differing rules in terms of time control. To keep chess games from becoming an endless waiting game, time control rules are established to force

the players to make moves. Time control refers to the set amount of time both players are given to complete their moves in a match. Time is monitored with a chess clock when playing at the board and by the chess program or site when playing digitally. In common tournament setting three types of time control are seen – traditional, which is the longest, rapid, and blitz, which is the shortest.

Traditional chess, or classical chess, is used in many of the competitions organized by FIDE (International Chess Federation), such as the World Chess Championship. In FIDE tournaments, the time control for classical chess games is "90 minutes for the first 40 moves followed by 30 minutes for the rest of the game with an addition of 30 second per move starting from move one" (FIDE, n.d.). According to FIDE, a chess game is considered rapid chess if the time is over 10 minutes but below 60, and blitz if all the moves are completed in a set time of 10 minutes or less (FIDE, n.d.).

2.1.2. Over the Board Chess and Digital Chess

What differentiates OTB chess and digital chess can be seen in their tangibility. The over the board variation has a clear physical aspect to it as both the board and the pieces are physical objects, and the moves are done by picking up the pieces and relocating them across the board. Moves in digital chess on the other hand are made through external devices. On computers the moves are mostly done with the help of the mouse and although mobile devices often require a physical touch to move the pieces, it lacks the tactility of the over the board experience. Even though the physical movement occurs still in digital chess, it happens externally and must be translated on-screen by the machine the player is using. Physical actions facilitate the play in both forms, but the actions itself are undeniably different in the two.

However, apart from the physical differences both digital and physical chess are the same. The rules of the game are the same, albeit FIDE approved online chess regulations only in 2021 (FIDE, 2021), and consequently all the openings one has practiced over the board can be played online and vice versa. Even the pieces and the board are same, even if the online version presents them differently and has differing interaction. A slight difference comes in the form of the opposing player, whom the player on the board can see and observe but the player playing digitally rarely can. The differences between the two are prominent, yet not enough to warrant a separation of online chess from chess.

2.2. Chess in Game Studies

As this study situates itself into game studies, it is worth a brief look at how chess has been studied in the discipline before. The aim is not to present all avenues from which chess has been studied but to present some of them.

The history of the game and its various variants have been a traditional point of interest, as can be seen from the recent article of Markov (2022) which focuses on three historical chess variants. In their article, Wiese (2016) questions the established ideas of the predecessor of chess.

As chess has such a long history, it has become a part of the everyday language. For example, checkmate is not only understood as the winning position in chess but also as a descriptor for any unwinnable situation. No wonder then that the effects of chess in popular culture are also studied, e.g. Hall (2022) explores the role of various board, dice, and card games in popular cinema and includes chess in the conversation. Overall chess is often mentioned in studies regarding tabletop games.

Chess programs have been studied, for example by Dailey et al. (2014) and Riis (2014). More abstract topics are also found (Sundaramadhavan et al., 2021).

Most often, however, chess is mentioned as a metaphor or a brief example when discussing a larger issue. For example, Placek (2023) uses chess as an example when pondering whether there is a way to determine the best tournament format. Danilovic and de Voogt mention to chess numerous times in their article *Making Sense of Abstract Board Games: Toward a Cross-Lucid Theory* (2021), and, on their conference paper about inclusive design, Mozelius et al. (2022) refer to chess.

There are various other studies within game studies that either are about chess or use it to further its point. Chess has been discussed from a large variety of viewpoints within game studies both indirectly and directly. Nevertheless, the player experience of chess has not been studied before.

2.3. Player Experience

Before moving on, it is crucial to define what we mean by player experience in this thesis. To start with, it is good to remember that player experience as a concept has its roots in

user experience, which originates from human-technology interaction studies (Bernhaupt, 2010).

Thus, a natural starting point would be in user experience but there is no agreed upon definition of it. It might seem, at first, a silly idea – everyone has who has used, or in our situation, played, anything has an idea of what their experience was like. The problem lies within the word experience, which, after all, is inherently abstract and subjective. The idea of what user experience entails varies from person to person. Despite this, we must settle on a meaning for the purposes of this study. Similar problems have been seen in related topics, such as lacking a definition for what player enjoyment means (Sweetser & Wyeth, 2005).

One definition for user experience is effectively brought up by Bernhaupt (2010), who remarks that user experience involves the qualitative experience, in its entirety, a user has while during their interaction with a product (p.4). If we go by this idea, we should consider everything experienced while playing – but not what happened before or what comes after. Though this does not mean that the experiences before or after the game are not worth a look or that they might not provide interesting insights. We would merely be excluding them from the analysis of the player experience.

As there is no readily available answer, the decision was made to see what the respondents included in the discussion before settling on a definition. As the data was read, it became apparent that a problem in terms of defining player experience comes when trying to decide what should be included in the experience and that the above definition would not be ideal.

As an example, without going into the analysis of the data too deeply, consider social aspects of chess. Some respondents mentioned enjoying the possibility of discussing with their opponents after a match over the board. Undoubtedly this is an important piece as to why such respondents want to play OTB, but whether to consider it in the analysis of player experience is a more delicate matter. Socialising during the match is of course involved, but what about the clear cases in which the socialising happens before or after playing? This brings us to an important question, whether what happens after or before playing should be considered in the player experience.

For example, the most common motivation for playing OTB chess in the data was social aspects. For some this meant meeting new people or getting to chat with people while

playing, before or after it – and so forth. If someone who states their preference for OTB chess also mentions that their main motivation is getting to see people simultaneously, are they saying that experience of over the board is better or that they prefer one of the versions that includes seeing friends? If we do not consider external matters such as this, this social side would not affect the player experience. Similarly, consider a person who plays over the board games mainly at exciting tournament situations and digital chess mainly to pass the time. In such a case, would the differences this individual finds between the two be because the play is more engrossing in one or the other or because one is played in more engrossing situations or with more serious intent? Undoubtedly this would affect which version any given respondent would prefer and how they perceive the experience. Such topics should, we think, be included when considering the player experience in this study.

The International Organization for Standardization (ISO) describes user experience as the "combination of user's perceptions and responses that result from the use and/or anticipated use of a system, product or service" (ISO, 2020). They add four notes to this initial definition. In the first, they explain how "perceptions and responses include the users' emotions, beliefs, preferences, perceptions, comfort, behaviours, and accomplishments that occur before, during and after use." (ISO, 2020) and in the second they add that "the user's internal and physical state resulting from prior experiences, attitudes, skills, abilities and personality; and from the context of use." (ISO, 2020).

As we can see, the ISO definition of user experience includes matters happening before, during, and after playing. The ISO definition fits our purposes well and is thus the one used in this study, albeit we change user for player. For the purposes of this study, it seems natural to include all aspects that affect the playing itself. The respondents often seem to think the external effects are a crucial part of the experience and such topics were fairly often discussed in the data. Such topics are then included and, similarly, the context of use is included.

3 METHODOLOGY AND DATA

The methods and the data of this study will be discussed in this chapter. The chapter is divided into five sections. The first focuses on the survey as a data collection method. It will briefly describe the basics of survey research before explaining why online survey was chosen as the method of data collection for this study. The benefits and drawbacks of online surveys will also be discussed, both in general and in relation to this study. The second section presents the survey created for this study and used for the collection of data.

The third section focuses on the chosen method of analysis, thematic analysis. The chapter will explain thematic analysis and illustrate why it is a fitting method for this study. The fourth section is a brief look into the ethics of internet research and this study. Finally, the fifth section is dedicated to the data. As they are not essential to thematic analysis, quantitative results will be displayed and discussed. After that, the process of creating themes and codes is briefly touched upon.

3.1. Data Collection Method

From the beginning of this thesis, it was clear that to answer the research questions, they had to be asked from chess players themselves. As such, considering the objectives of this thesis, both face-to-face interviews and online survey seemed efficient ways for collecting data. After long deliberation, we ended up choosing the latter. The aim of this study is not to reflect the experience of all chess players, as it would be rather impossible to conduct an exhaustive study representing them all. Instead, the study intends to simply analyse the answers of those who take the time to respond to the survey and thus create insight into a sample population of chess players. We found the nature of surveys perfectly suited for the thesis.

Surveys are a research method tailored to compile information about a large group of people by asking questions from a random sample of a population (Fowler, 2009; Booth, 2021; Sue & Ritter, 2012). By asking respondents directly, survey research is especially adept at producing statistics from large groups and thus great for this study. An essential assumption in survey research is that by evaluating the responses of the sample, the researcher can evaluate the target community as a whole (Fowler, 2009). Though not everyone from the population will take part in the survey, the prospect is that the

population the survey is planned to characterize is found and distributed in same fashion both in the sample and in the population (Fowler, 2009).

Sue & Ritter (2012) explain how there are various ways of conducting a survey, each excelling in different situations, including the traditional methods of face-to-face and telephone interviews. One could also use the mail service to reach respondents. The one used in this research, and the most modern of the methods, is online survey. Most notable types of online survey are email surveys, in which the questionnaire is sent as a hyperlink in an invitation email, leading the participant to a separate site in which to complete and submit the questionnaire, and web-based surveys, which place the questionnaire on a website, inviting the users of the site to answer.

To find the best type of survey for any study, the researcher has to consider their target audience and research objectives when deciding on a survey method (Fowler, 2009; Sue & Ritter, 2012). By considering each facet of the survey process before beginning, the researcher has an increased chance of collecting the data that sufficiently answers the research questions while adjusting time and cost restraints properly. Whichever method of survey one chooses, the questionnaire must be designed carefully, as if the questions are unclear or misguiding the results will be as well. Wording is pivotal in any survey research. The rigid format means that questions cannot be adjusted once the survey is sent (Braun et al., 2021). Similarly, the researcher is unable to ask for clarification on the responses. The length of the survey is to be considered carefully as well. The length can vary from survey to survey, but in generally lengthier surveys have a higher chance for respondent detachment or tiredness, potentially leading to short or inadequate responses. (Braun et al., 2021).

3.1.1. Online Survey: Strengths and Weaknesses

As the study calls for a large number of respondents, a qualitative internet survey is an excellent fit. Its effectiveness for collecting data quickly over a wide geographical area with relatively low costs should not be overlooked (Sue & Ritter, 2012). The ease of online surveys affected the choice as well. The data is directly entered by the respondents themselves, and the questionnaire is self-administered, meaning that filling it does not require constant supervision or guidance (Sue & Ritter, 2012, Braun et al., 2021). Neither the researcher nor the respondent is required to travel, which was an added bonus as the survey was conducted during the COVID-19 pandemic. The respondents may answer

more freely without the researcher nearby. They might also be more at ease to argue with the researcher or criticize, for example, the survey or the questions. Even negative responses, or ones that are clearly written humorously can prove beneficial through reflection. Surveys are also convenient as the respondents can choose to fill out the survey at any hour of the day and take as much time as they want (Braun et al., 2021). Online surveys can also avoid some of the logical discrepancies in follow-up questions, as the questionnaire can be programmed to skip parts that are not relevant. Though errors in programming might still happen, the automated skipping removes the opportunity for respondents to answer wrong questions. Additionally, the anonymity of the participants can be guaranteed accordingly in a study such as this, as the potentially identifying questions are limited to the most basic of demographic ones.

Although online surveys have some advantages over the more traditional methods of survey, they have disadvantages as well and are not perfect for every study. For one, they have inherent coverage biases, meaning that they favour some parts of the population over others. After all, certain amounts of the population do not use the internet as much or regularly as others. Naturally online surveys also require that the respondents are literate and have access to internet and necessary technology. However, given that the ideal participant should have played both physical and digital chess to answer the questionnaire fully, it is likely that such respondents would have access to internet and thus to the survey. Still, it is entirely possible that some people cannot or do not fill out the survey due to lack of technological access or psychological, physical, or financial limitations to technology that might stop them from participating in digital surveys.

Nowadays, as digital surveys have become ever so popular, the respondents may feel overloaded with them, possibly reducing their interest in participating. Online surveys are naturally reliant on software and technology, which can prove problematic in certain scenarios. Finally, it is important to remember that responses to any survey are unreliable to some degree as people often give imprecise answers, not because they mean to report incorrectly but because humans are innately unreliable at reporting their own data (Booth, 2021).

In his book *Survey Research Methods* (2009) Floyd J. Fowler points out how each survey involves several decisions that have the ability to improve or lessen the precision of the survey. These include how many people are requested to fill out the survey, who actually

get the survey, as well as the design of the questionnaire as well as the assessment of the answers.

3.1.2. Qualitative Surveys

After settling on the data collection method, a crucial decision had to be made on whether the desired data would be quantitative or qualitative. The answer to this question would affect how the survey should be constructed, how the analysis could be done, and so forth.

In his book *Qualitative text analysis: A Guide to Methods, Practice & Using Software* (2014) Udo Kuckartz explains the difference between qualitative and quantitative text analysis. Though both would categorize the collected data, quantitative methods aspire to represent the categories by numbers which can then be statistically analyzed. Qualitative analysis, on the other hand, is concerned with the text. The text in its entirety is the focus, and it stays relevant even after the categorization of the data. The wording of the response is pertinent throughout the study, including the final stages of the study. In quantitative methods the text plays no role after the categorization.

Considering this and the research questions, choosing to focus on the qualitative data and methods was a clear choice. Quantitative data would undoubtedly also be gathered through basic demographic questions and other questions focusing on the chess background of the respondents. Yet it was obvious that qualitative data, gathered by open-ended questions, would prove to be the most fruitful for this study.

Qualitative surveys have the potential for valuable and intricate responses. This is possible thanks to the format of the method. All respondents in a qualitative survey face the questions in the same arrangement. Instead of selecting from fixed options, they must respond in their own words (Braun et al., 2021). This showcasing of the terms and language of the respondents can provide valuable insight into the subject matter. Additionally, the responses might highlight interesting nuggets of information, including the respondents "subjective experiences, narratives, practices, positionings, and discourses" (Braun & Clarke, 2013, as cited by Braun et al., 2021, p.641).

In the array of qualitative data collection methods qualitative surveys come with a particular asset, a so called 'wide-angle lens' on the subject (Braun et al., 2021). This wide approach has the capability to capture a variety of views, experiences, and reasonings. Additionally, it diminishes the risk of presenting a singular respondent, whose

ideas might differ from the overall population, as a representative for the group rather than a single person (Braun et al., 2021). Survey is thus an effective method of acquiring valuable knowledge of a subject matter and studying a sizeable, varying, or obscure group of people.

3.1.3. Choices Relating to This Study

Sue and Ritter (2012) note that many researchers conduct a preliminary study through focus group discussion or personal interviews, whereas others test the questionnaire by sending it out to a small group before going ahead with the final survey. Others ask professionals of the topic to help with the questionnaire. We had no access to a small group of chess players to help in a preliminary study. Instead, to ensure the quality of the questionnaire, it was sent to an employee of the Finnish Chess Federation (Suomen Shakkiliitto). They were kind enough to examine the questionnaire, to assure that the questions were worded properly and that all the necessary questions were asked, before it was sent. Similarly, game studies researchers were asked to review the survey. Finally, some family members of the author filled out a preliminary form to ensure it worked properly.

In terms of the sample, the survey calls for chess players who had played both physical and digital chess. Though the number of online players has risen over the past years, looking for respondents amongst online sources, such as chess forums and social media, seemed risky, as there was a risk of them having played only or mostly digital chess, with the risk higher than ever due to the increase in players during the pandemic. Thus, initially the plan was to search for respondents in chess clubs and organizations from various countries, for a few main reasons. For one, having respondents from different countries a possibility to analyse whether the responses differ between countries. Additionally, the contact info of various clubs of any given country can often be found through the website of the country's chess federation and are thus easy to contact. Secondly, it seems extremely likely that chess players enthusiastic enough to join chess organizations would have played both versions of the game.

However, given that it was unfeasible to survey all chess clubs or decide which ones were chosen over others, it seemed more logical to limit the search for respondents to a smaller and more manageable area. Such an area was determined to be Finland and its various chess clubs. However, while in contact with the Finnish Chess Federation, the possibility

arose to ask whether they would be interested in sharing the survey link once it was ready. They agreed to share it, and thus the plan was changed. Respondents were to be gathered from the members of the federation rather than chess clubs across the country. The change was unexpected, but welcome. The members of the federation seemed ideal candidates, as they were likely to have played both versions of chess and were in no doubt enthusiastic enough to respond to the survey. Additionally, this meant that no further time had to be allocated for contacting chess clubs and looking for respondents.

Though choosing to survey federation members alone might lead to some amount of bias, as they do not represent chess players as a whole, we doubt limiting the study in this way is problematic. Secondly, the study chiefly aims to create an apt look into the player experience of a sample of Finnish chess players, potentially giving insight into chess players in general.

The sample size, or how many people would respond, was not something we considered too carefully at the planning stage of the study. We found it hard to estimate how many responses were needed for adequate study, as the quality and size of responses was impossible to know beforehand. Additionally, Braun et al. note how the sample sizes for qualitative surveys range between twenty and over one hundred responses (2021). It seemed extremely likely that large enough number of people who were eager enough to answer in detail would be found through the federation. If not, the study could always be expanded, and the chess clubs of Finland could work as a backup for finding respondents as could the clubs across the world.

Finally, settling on Finnish respondents alone meant that the survey should be conducted at least in Finnish. Ideally a Swedish version, as it is also an official language of Finland, would be included as well, as would an English version. However, given the time constraints and the workload involved already in the study, the survey was ultimately only available in Finnish.

3.2. Method of Analysis

As was discussed previously, a qualitative method was deemed to be most fitting for this study. As such, the main method of analysis was to be from the annals of qualitative research and after some deliberation, thematic analysis was chosen.

3.2.1. Thematic Analysis

According to Braun and Clarke thematic analysis (TA) "is a method for identifying, analysing, and interpreting patterns of meaning ('themes') within qualitative data" (2017, p.297). It is a widely flexible method which can be used in various ways both in qualitative and quantitative studies, though it is best known for qualitative work. Kuckartz (2014) notes that, as the most often used method in terms of quantitative content analysis, thematic analysis is well-tested and demonstrably sound.

In thematic analysis the dataset is sorted into various categories, or themes, which are then analysed. The data is at first read through meticulously, after and during which the researcher classifies the data within different types of units – codes and themes (Braun & Clarke, 2017). Codes are the smaller unit of the two. They indicate intriguing characteristics in the data. Codes, then, are used to create themes, which Braun and Clarke describe as "patterns of meaning, underpinned by a central organizing concept - a shared core idea" (Braun & Clarke, 2017, p.297). Themes are fundamental to this type of analysis, as they create the base upon which the analysis and results are built. Creating the themes and codes is thus essential. The process of constructing themes for this thesis will be discussed in 3.5.2.

Though TA requires some summarization of the data, it is in no means aiming to merely summarize. In fact, users of qualitative text analysis should avoid simply summarizing responses and calling them themes, as this can often lead to poor and weak qualitative analysis (Braun & Clarke, 2006; Braun et al., 2021). Instead, the data should be approached as a whole, so that codifying and theme creation is done in the dataset in its entirety (2021). The emphasis of TA is in recognizing and analysing fundamental components of the data, or at least the most of them, with the research questions in mind. It is good to remember, however, that the research questions are liable to develop and change while going through the data. To summarise, TA provides the researcher the means to produce themes in the data and to codify it in an approachable and organized manner, which in turn enables accurate and valuable analysis.

Kuckartz describes where the potential of qualitative text analysis, including thematic analysis, comes from: "By comparing and contrasting sub-groups of interest, the category-based analysis gains sophistication, complexity, and explanatory power." (Kuckartz, 2014, p.70). Clarke and Braun (2013) write of the strengths of thematic

analysis, including its remarkable flexibility. It is practical with various data collection methods, including interviews and surveys. Sample sizes can also vary, as TA can be implemented in a study of a handful case studies or a larger one with hundreds of participants (Braun & Clarke 2017). Similarly, various types of research questions, structures, as well as methods of meaning generation can be applied.

The main attraction, and the one that influenced the decision of choosing this method the most, is the fact that TA can be applied to find patterns from even a large quantity of data. In terms of this study, the purpose of TA is twofold. At first, it is used to find and generate themes from the gathered data, and second, it will be used to analyse the thematic categories found.

Like all other methods, TA is not a perfect fit for every type of qualitative research (Braun & Clarke, 2017). The method requires codification of the entire dataset (Kuckartz, 2014; Braun & Clarke, 2006) for example, and can prove cumbersome in some cases. However, it seems reasonable to argue that it is a great choice for analysing the data gathered through a survey such as the one used for this study. The exact number of survey responses was unknown at the time of choosing the method, and as such TA was a logical choice given its ability to adapt fittingly to any amount of data. Finally, one key part in the decision to choose TA lied in its accessibility, as well as in the fact that the method is relatively straightforward to use even for a researcher unfamiliar with this type of qualitative study.

3.2.2. Basic Structure of Thematic Analysis

Kuckartz (2014) summarizes the essential process of thematic analysis to seven main steps. The first step is to read through the entire dataset. The researcher is also meant to single out essential excerpts in the data and create notes with what seem to be the most significant and fascinating data while writing down any possible ideas for analysis. The second step includes, simply, the creation of the central themes. The thematic categories should be understandable and to the point, yet sophisticated if needed. At this stage one should also examine whether the chosen themes and sub-themes are indeed applicable with the data.

The initial coding begins with the third step. During this stage the researcher is to read the text word-by-word in its entirety and allocate excerpts to themes. The researcher should conclude which themes are present in each excerpt, though it is good to remember

that responses can belong to various themes. Sections of text that are not connected to any themes or to the research question should not be coded, as they are not relevant.

Braun and Clarke (2022) approach the process differently. For them, coding process begins first, and codes would then provide the basis for creating themes. To start with, one should simply start reading through the data from the first data entry and stop once something that might be relevant is found. Each interesting part should be coded for future reference. This order of coding and then creating themes was followed in this study.

The other steps of Kuckartz were used, however. The fourth step is done rather quickly, as all excerpts belonging to the same main theme are assembled into a table or list. The fifth step, however, takes longer as in it the sub-themes are created inductively based on the data. During this stage the researcher should choose themes they want to diversify by creating sub-categories in them. The aim of the study should be considered during this creation process to ensure that the new sub-themes serve the purpose of the study in some way. Finally, the novel sub-categories are to be organized along the old themes.

As the themes are now defined, the sixth step consists of coding the data a second time. In it, the data is read through again and the excerpts coded earlier are assigned to the new sub-themes. A possible transitional step can be done here, in which the data is thematically summarized. The seventh and final step consists of analysis and display of results.

3.2.3. Interpretation of Qualitative Data

The last step of thematic analysis is interpretation of the data, or analysis, during which the data is perused intently, and conclusions are drawn from it. When it comes to qualitative analysis, the main goal of researchers is to learn of people's subjective experiences, thoughts, feelings and so forth. Flick (2014), explains how this is done through interpretation:

> To achieve this aim, we need to ask questions about their meaning and significance; we need to make connections between different components and aspects of the data in order to increase our understanding. In other words, we need to make the data meaningful through a process of interpretation. (Flick, 2014, p.136)

Flick continues by explaining how interpretation is a "response to the question 'what does this mean?'" (p.137) and that the aim of is to create a better comprehension of the text.

Flick also presents five potential types of understanding interpretation might create, depending on what the researcher is looking for and which features of the data they focus on (2014, p.137). Out of the five, two are especially interesting and fitting for this study. For one, Flick mentions how interpretation could give a clearer idea of what the respondent tried to communicate. This way even responses that might not seem like they offer much insight, for example due to their small size, can provide useful. Secondly, interpretation could shine a light on the respondent's unintentional communication, e.g., what might have motivated the response even if the respondents themselves do not realise this. In this study, during the analysis of the data, the two are employed. Both the intentional and unintentional responses of respondents can be crucial for the understanding of their experience and are thus explored in the later chapters.

Flick also presents two approaches to the task of interpretation, 'suspicious' interpretation and 'empathic' interpretation (Flick, 2014, p.137-139), the latter of which is what is used for this study. 'Empathic' interpretation, Flick explains, aims to elaborate and magnify the meaning found in the material. The researcher "attempts to illuminate that which presents itself by paying special attention to its features and qualities, by making connections between them and by noticing patterns and relationships" (p.138). For this type of interpretation, the interpreter must enter the phenomenon, to try and understand it from the inside. These interpretations are deeply rooted in the data as, again, the goal is to amplify meaning (p.139). This does not mean, however, that the 'empathic' interpretation only operates with matter found explicitly from the data. The aim is not to merely to describe the data, instead interpretation is interested in "clarification, elucidation, and understanding" (p.139) of it. Things can be added to the material, but such matters must be implicit in the material rather than something brought from the outside (p.139).

3.3. Ethics

It is also of crucial importance to keep the survey as ethical and fair to all respondents as possible. According to The Association of Internet Researchers and their most recent version of *Internet Research: Ethical Guidelines* (Franzke et al., 2020), the main ethical goal of any research is to avoid harm, both to the respondents and the researcher. They are all to be protected. Some key issues they raise include data storage, its governance and depiction, security of the data, and cultural aspects, as internet research can easily

cross various cultural barriers. This all is emphasized by the fact that currently data cannot be completely anonymous but can only be 'de-identified' (Franzke et al. 2020).

Nevertheless, it is good to remember that all ethical concerns are to be considered in the context of the study they are related to. Subsequently, we believe that all these issues are dealt with relatively well in this particular study through the anonymization, or de-identification, of all the data that is collected. No sensitive data is collected, and the data will only be accessible, at most, by two people. Additionally, when the respondents begin, they are reminded that the data will be collected anonymously, that the data is only handled by the author and potentially by the supervisor, and that the data will be disposed after the study. Naturally, the respondents are filling out the survey by their own volition and are able to cease answering at any given point.

Flick (2014) discusses the ethical issues of interpreting data. Interpretation of subjective and at times abstract topics can be difficult. What is found from a set of data can vary greatly depending on what viewpoint the researcher takes and what questions they ask. As the researcher decides what is to be known about the experiences of the respondents, this means there is a chance of misrepresentation (p.141). Flick also brings up the ethical question in terms of ownership. Does the interpretation belong to those who have generated it or to those whose words and actions have been interpreted? They do not give answers, and perhaps it is up to each and every one of us to decide for themselves. It is important to remember each qualitative study interprets its data, no matter what, as the data cannot represent itself. It is always analysed and examined to gain answers to specific questions (p.147). All that one can do is to present the process of interpretation as accurately as possible.

3.4. The Survey

Next, the survey created for this study will be presented. The final version can be found in the appendixes, both the original in Finnish (Appendix A) as well as the translated version (Appendix B).

The survey was created and conducted on the online platform Microsoft Forms. Forms was chosen for a handful of reasons. For one, it was easily accessible, and the finalized survey could be easily shared as a link to the respondents. Secondly, creating the survey structure and the necessary branching options proved to be relatively easy and

straightforward in Forms, even for someone with no previous experience. Microsoft Forms also automatically presents the data in an accessible way and includes the option of compiling the dataset into a downloadable file.

The survey was separated into three sections which are presented below. The survey included branching, meaning that respondents did not have to respond to questions not pertaining to them.

3.4.1. Section 1

The first section is the shortest one, dedicated to demographic questions. It was decided that only the most basic demographic questions would be necessary for the study, mainly the age and gender of the respondents. These were asked in the first two questions of the study. The respondent is given an option to not disclose information of their gender if they so desire.

Third question goes already into chess, asking how long the respondent had played chess. The first three questions were included to enable the most rudimentary analysis through comparisons of the answers between respondents of differing ages and genders, as well as between respondents who had played chess for a specific time.

The fourth question of the section was simple as well. In it, the respondent had to mark whether they had played chess previously only over the board, only digitally, or both over the board and digitally. Though ideally all respondents would have played both versions, it was deemed necessary to leave the option open in the case some respondents had not played both. Depending on the response to the fourth question, the respondents were guided to the according path along the rest of the survey.

3.4.2. Section 2

The second section included more background questions. Depending on the respondent's answer at the end of section one, they either were to answer the questions regarding physical chess, digital chess, or both.

In this section the respondents were to tell how much chess they had played over the last six months on their chosen versions. Additionally, the respondents were asked to tell what time controls they played with, and whether the COVID-19 pandemic had affected how much chess they had played.

The respondents who had played digital chess or both were also to answer on which device or devices they play digitally. They were also given the chance to report whether they play digital chess online against unknown or familiar people or against a chess computer, but the respondents were not required to answer this question.

Quite like the first section, these questions were included to allow basic analysis. Data showcasing how and how often the respondents play chess could be used to see whether playing times or styles correlate with the other answers, including the ones related to player experience.

3.4.3. Section 3

The third section is the most influential to the study, as it houses the open-ended questions that most of the analysis is based on. Again, there are three version of this section depending on the response to question four.

All respondents are asked to recall their last experience of playing chess on the chosen versions. Alongside the question a small panel of information (see Appendix A for the original, Appendix B for the translation) gives the respondents some topics they might discuss. The respondents who had played both versions were also separately asked to describe how the player experience compares between the two. The question was accompanied with a small text as well (see Appendix A, Appendix B).

The purpose of these two questions was to gather data on how chess players themselves would describe their player experiences and the similarities and differences in the experiences between the two games. The questions have the potential to gather data that can be analysed and used to determine whether the respondents consider the player experience different between the two games. Ideally the written responses would provide well verbalized descriptions of the player experiences, their differences, and similarities. Even if a respondent would fail in articulating their experience in these questions, or if the wording of the questions fails to elicit a desired response, interesting results can hopefully still be derived from contrasting the answers. Additionally, the data gathered from these questions can then be analysed to potentially determine whether the respondents experience playing similarly. The data can also be used to see if players of a certain age or gender tend to experience, or at least verbalize, playing in a certain manner.

The respondents were also asked to describe what motivates them to play chess. Again, the reasoning for the inclusion of this question is rather akin to the previous ones. The data can conceivably be used to determine whether the respondents have comparable or contrasting reasons for playing the two variations. This could then potentially give insight into how the motivations differ or coincide between the two versions. It might also be possible to discover nuggets of information in relation to the player experiences, especially if the motivations seem to differ noticeably or not at all.

Finally, the last question was an optional one, merely giving the respondents an option to recount anything else related to the topic they might want to recount or note.

3.4.4. Accompanying Note

After finalizing the questionnaire, the accompanying introductory text was written. The intention was to create a text that would garner interest but would not affect the responses. It was also used to explain to the respondents the steps taken to keep the study as ethical as possible. Both the translated version and the original Finnish version can be found in the appendixes.

3.5. Data

The link to the online survey was sent to the members of the Finnish Chess Federation on 28th of March 2022. Additionally, the link to it was shared on the federation's group on the free online chess server Lichess.org. The survey was open for respondents until the 19th of April. In the end, the survey was filled by 205 respondents. The number of responses was larger than expected. Though it naturally meant a slower and more cumbersome analysis process, the number of responses also provided a better assessment of the target group. A qualitative data analysis software, ATLAS.ti, was used to organize and codify the data.

As the survey was anonymous, respondents were named by the order in which they filled the survey. E.g., if we were discussing respondent 1, that would mean the first one to fill the survey and so forth. To save time and space, respondents are often shortened to R, for respondent, and the number that they have been assigned to, e.g., R123 and R38.

The average time respondents took to complete the survey was 18 minutes and 58 seconds, with several respondents completing the survey in under five minutes whereas

others took over half an hour to fill the survey. It is good to remember that the average time is slightly skewed, however, by the fastest and slowest extremes. Notably, one respondent took 205 minutes to fill the survey and another 107 minutes. This was expected, of course, given that the respondents could take breaks in between of answering and as there was no supervision while filling out the survey. On the other end of the spectrum, one completed the survey in just over a minute. These times were reflected by the length of answers to the open-ended questions, as those on the shortest side were a single word and the longer ones consisting of several paragraphs. For example, respondent 205 wrote a 145-word response to just one question.

3.5.1. Quantitative Data

Now, the focus will be on the quantitative data. See appendix C for the full quantitative results. A quick reminder, as the quantitative data is not especially relevant to thematic analysis, it is discussed already now. One could consider it as background for the analysis up ahead.

The respondents were relatively well divided between the possible age groups, with about 20 to 30 respondents in most groups. The largest group was that of 50- to 59-year-olds, in which 46 respondents belong. The second largest group is that of 60- to 69-year-olds at 35 respondents, and in third are 20- to 29-year-olds with 32 respondents. The smallest group was that of under 20-year-olds, with 19 respondents.

In terms of gender, the respondents were overwhelmingly male with 193 out of all 205 respondents. Only 11 respondents were female, with one respondent choosing not to state their gender. Interestingly seven of the eleven female respondents were 20–29-year-olds or under 20-year-olds with the rest spread evenly. Though this might be a coincidence, it could also be seen as an indication of chess becoming more accessible, desirable, or both, for younger women. Likewise, this could implicate that there is something in chess culture that drives women away.

The ages of respondents are clearly in view in the third question, in which just over half of the respondents claimed to have played chess for over 30 years. In contrast, only one respondent, a 30–39-year-old male, had played for under a year. The other groups were more even, with the second largest group consisting of 29 respondents and the second smallest 20.

In similar overwhelming fashion, 200 of the respondents had played chess both over the board and digitally and were thus able to compare the two player experiences. Of course, this did not mean that all two hundred of them play both versions regularly. Most notably R174 answered the open-ended question about digital chess by simply stating that they don't play digital chess. After that, they repeat that answer for the questions about the differences between the two versions, despite answering in the quantitative questions that they had played both versions. One respondent, a 60–69-year-old male, had played chess only over the board whereas four had played solely digitally. The four digital players were of varying ages, the youngest one being 20-year-old and the oldest 40–49-year-old. Unsurprisingly, two of the four had started chess during the COVID-19 pandemic and attributed that to the lack of OTB chess. The individual who had played chess for under a year played both versions regularly. The respondent who had played solely OTB did not disclose why that was the case.

Interesting contrasts can be seen in the questions relating to the amount of chess played. During the past half a year only 13 respondents played over the board chess daily, and only 25 played a few times a week. At the same time, the majority played digital chess more frequently – with 97 respondents playing daily and 70 playing a few times a week. Overall, the respondents played over the board chess much less frequently than digital chess. This might be seen as an effect of the COVID-19 pandemic, as most of the respondents noted how they had played less over the board chess during the pandemic and over half noted that they had played more digitally during it.

In terms of the time control in OTB chess the respondents were spread evenly. 122 respondents play OTB chess with up to 10 minutes for the moves, 98 with 10 to 60 minutes, 108 went with over 60 minutes. 30 respondents responded with other. It is good to remember that in this section the respondents could choose multiple answers. Faster time controls were favoured noticeably more in digital chess. As over 100 respondents reported playing OTB chess with over an hour for moves, whereas only 11 did so digitally. On the other hand, 157 respondents played digital chess with up to 10 minutes for moves, 67 with 10 to 60 minutes, and 31 responded with other.

Finally, the last two quantitative questions. Again, respondents could choose multiple answers in both. 168 respondents played on a computer, 111 on a phone, 38 on a tablet, and 4 with something else. 188 respondents reported playing digital chess against people

they did not know beforehand, whereas 76 played against familiar people and 42 against the computer, or the artificial intelligence (AI).

3.5.2. The Process of Coding and Creation of Themes

After all the data was collected and the quantitative data considered, it was time to move towards the coding process and the creation of themes. It became evident immediately that most respondents found differences in the player experience.

For coding the data was read word-by-word in its entirety. The first round of coding happened during this initial reading, and various codes were created. Everything that seemed to be significant was coded. In the case of this study, this meant that whenever a respondent wrote of the player experience in relation to OTB chess, digital chess, or both, the excerpt was coded. Codes were also applied to parts that, despite not distinctly focused on it, could be inferred to be about the player experience. As the dataset proved to be larger than expected, this first step, and the whole process, took considerable time. While coding and reading, various ideas for analysis were underlined and the most compelling answers were noted and highlighted for later analysis.

After this primary coding was done, the five central themes were created. With the research questions in mind, they were designed to represent the views of the respondents. The topics which the respondents raised in relation to player experience are both the building blocks of the themes and their focal point. They all concentrate different aspects that affect player experience and as such the themes vary in size. As Kuckartz (2014) points out, themes can either be cultivated from the data or acquired from the research question or theory. It is also possible to use both methods during one study.

All but one theme created were distilled from the data. The one that was not was focused on the self-evident differences between the two. Though noticeable in the data as well, the need for this theme was clear even before the study began and was thus extracted from the latter research question. The theme is called *the Overt Differences* (in player experiences). These include matters that are naturally and undeniably different between the versions, including the tangibility of the pieces versus the user interface and the environment in which they might be played.

The rest of the themes were refined from the data. Although we naturally had some had some preconceptions and expectations for what was to be found in the data, the themes

created from it were not inspired by prior knowledge. The first of these themes is called *the Other Players*. In it, we included all topics relating to the opposition that might or might not be sitting across the table. In this theme are matters such as psychology and social aspects. The second was named *Differences in Play*, dedicated to differences the respondents found in the playing itself. This includes a related, but not directly, matter of cheating and cheaters.

The third one was named the *Affect*. In it are topics such as emotions and feelings, focus, atmosphere, and the experience itself – when respondents spoke of it directly that is. In the fourth data driven theme, *Respondent Motivations and Preferences*, the respondent's motivations and preferences are discussed. The most extreme version of preference is also touched upon here, in the sub-section of 'real chess'.

As the themes were formulated, it became clear that a small group of responses would need to be discussed separately from the themes. These responses were from respondents who either found the player experience the same or at least nearly indistinguishable and the respondents who felt it was impossible to compare the player experience of the two. This discussion is had in the next chapter, prior to the themes.

Then the sub-themes, some of which were mentioned as examples when presenting the themes, were created. For the first theme, Overt Differences, this meant the separation of various overt topics into their own sub-themes such as physicality and environment. After the creation of the themes and sub-themes, additional coding was in order. The data was read again to find out any remaining relevant passages that went unseen earlier. All relevant pieces of text were coded accordingly and placed to relevant the theme or themes.

Before moving on to discussion, the results are presented in depth. This is done in the next chapter, in which the themes are discussed, and their contents analysed.

4 RESULTS

This chapter starts by presenting the minority of respondents who feel that the player experience is identical and those, who find it impossible to compare. After that, the themes created are introduced and the various differences in player experience, broached by the respondents, are discussed.

While examining the themes and sub-themes, several respondent responses are displayed as examples. Usually they will be paraphrased, as quoting them fully would take too much space and the meaning comes clearly through paraphrasing as well. A handful of quotes are present, however. Small pieces taken from responses that have been deemed to be the most salient examples of an idea or very fitting examples of one. Such quotes are translated by the author and the untranslated quotes can be found in appendix D.

Even though respondents are brought up as examples, it is good to keep in mind that not all of them will be mentioned individually in the chapter. This is especially the case when respondents repeat the same idea. In such a case one might be paraphrased to show the sentiment and the other(s) left unmentioned but referred to. For the same time saving reasons, not all of the topics mentioned by respondents are talked of, but only the most numerous or interesting ones.

Before moving to the themes, it would be wise to recall the research questions. To repeat, the aim is to find out the differences in player experiences – if there are any – when playing chess over the board as compared to when playing chess digitally.

Player experience is a combination of numerous aspects, as discussed in the second chapter. This chapter attempts to look at these aspects in isolation, giving the reader a chance to think about them and pointing out some interesting trends and differences that emerge. At places it is necessary to discuss the topics together, as they can be so intertwined it is nigh impossible to separate them.

4.1. Lack of Comparison

> In my opinion, the player experiences cannot be compared. Playing over the board is a completely different thing than playing digitally. (R22)

Most respondents found one or more differences by comparing the player experience. This small section was set up for three minority groups found in the data, all of which fail

to compare the experiences. Thus, unlike the other sections in this chapter, this one is focused on the responses relating, or loosely relating, to the first research question, whether a difference exists at all.

Most of the respondents, as we have already established, find one or more differences to exists. In this chapter, we discuss those who oppose this idea and those who find it difficult or impossible to compare the experiences, presumably as they find them so vastly different. Although only a handful of respondents fit within these groups, they are still worth a look. The answers presented in this section might not seem like the most fruitful in terms of the research questions, given how they avoid comparison. Still these answers, by being different from the general view, are helpful to understand the respondents as a whole. Additionally, as we have clearly seen earlier in this chapter, exploring what they leave unsaid can be a crucial tool in understanding the respondents.

First, those who consider the experience to be the same in both versions. R18 mentions motivational differences but considers the player experience to be the same. R52 finds that practice is easier in digital chess but does not think the player experience differs much. R116 says that the experience is similar in both, always containing excitement as chess is interesting no matter the version. Finally, R194 explains how playing is accomplished in both versions. For this kind of respondents, the experience is the same or at the very least close enough to be indistinguishable.

Importantly several of the respondents seem to think the same way without directly addressing it. For example, R166 talks of the different time controls they prefer for one version or the other but fail to even consider the two differently. R105 presents their view with a simple yet eloquent technique, answering the first two open-ended questions, on OTB and digital chess, respectively, with the exact same answer. Similarly, R165, when responding to the question on how they think the player experience compares, responds with one answer representing both. Considering they were one of the respondents who found OTB chess more real, R26, who considers the experience the same, apart from the feel and smell of physical pieces, is an especially interesting case. R124, whose quote was shown in 5.2.3.1 should be mentioned here as well, as they view only the presentation of the board as a difference. To them the player experience is the same.

The respondents talked in this section discuss the question on player experience differently than the average respondent. Typical respondent might at first say the game is

the same but will eventually discuss differences in the experience. For example, respondents like R33 and R64 add that the physicality changes both the game and thus experience. Importantly respondents who remark that the game is the same, they do not often talk of experience explicitly. The same is repeated by R33, R64, and R126, to name a few – all writing that the game is the same before talking of differences. Mirroring them comes R158, who finds there is not really anything in common between the two versions, except chess itself. Thus, the respondents who found the player experience identical can be seen as the exception to the general opinion of the respondents. Whereas most consider the experiences to differ, these respondents disagree.

Now let us focus on the few respondents that found the versions distinctively different. For example, R70 states that the two versions do not really compare at all. Respondents like R38 and R167 consider the two to be two different games. Whereas R176 and R177 explain how the two feel like different games. R193 sees nearly nothing in common between the two but contemplates that it might be because they play OTB chess mainly competitively. Then there are those who considered it impossible to compare the experiences. R22's quote from the start of this section is a prime example. They clearly think there is a difference, as is evident by them saying elsewhere in their answers that there are several small things affecting the experiences, but do not know how to compare them. R190 follows suit, describing the experiences different but admits that they do not know how to compare them. R5 explains that the nature of the experiences is so different that they are hard to compare. R55 and R87 simply state that there is no way of comparing.

The respondents who consider the experience to be indistinguishable oppose the general answer to the first research question shared by most of the respondents. On the other side we have the respondents who think the experiences are so distinctly different they cannot be compared. All of them represent extreme ideas within the data and these extremes are why they are important. These contrasting groups exemplify the subjective nature of player experience.

Next, we will go over each of the themes one by one but in no particular order. The next chapter, then, ties the aspects together and answers the research questions.

4.2. Theme 1 – Overt Differences

> Correcting pieces, pressing the clock, whether the chair rocks, whether the playing hall is too cold/hot, does the opponent annoy, is the board made of wood, and if you play in a team, how is the team doing. These are, among other things, small matters that vary constantly compared to a controlled environment, i.e. playing digital chess at home. (R159)

There are differences between the two versions which are impossible to deny. In one, the pieces and the board are tangible and in the other they are pixels on a screen. In one, the body language of the opponent can always be considered and in the other the opponent, more often than not, is reduced to a nametag.

Yet, despite all that, these most obvious differences are mentioned rarely. At least when compared to how numerous mentions some of the other themes had. Although some respondents discuss matters such as the physicality of OTB chess and the pieces in it, it seems that for most it is natural not to even deliberate them. It is simply expected to be known when talking of the differences in player experience.

R159, as seen in the quote above, does talk of these matters explicitly. They do so with one of the most comprehensive responses related to these topics. To them, the physical aspects, including ones related to environment, alter the player experience by bringing its own nuances into the mix. Theirs is an excellent summarisation of the physical differences that, we believe, most respondents did not think to mention.

Even if the theme is not the largest, it is necessary. The aim of this sub-section is to see how the overt differences come into play when considering the player experience. The overt differences have been divided to two main sub-categories: physicality and user interface, and environment.

4.2.1. Physicality and User Interface

Perhaps the most obvious differences are found in the physicality of OTB chess and the user interface (UI) of digital chess. Tangibility was not talked of often and when it was the focus was mainly on abstract issues. For example, R33 claims that the game feels more real with tangible pieces, even more so with wooden ones. R23, on the other hand, says that the physical pieces bring a certain style of dignity – especially if the pieces are of high quality. R137 dabbles in the realm of preferences, explaining how they find

playing with physical pieces more therapeutic and pleasant. A sense of realness, dignity, or the therapeutic value is hard to measure – but they are a part of the experience.

On a similar note, R146 explains how the physical board and pieces are an important part of the experience. R13 reiterates, saying that playing with tangible pieces and a chess clock is important. R124 simply notes that playing with physical pieces is better. R22 boils it down even further, simply stating that physicality is an "important thing". The digital side sees its fair share of similar rhetoric. R123, for example, notes that the UI is of great importance. However, none of them explain the importance further.

Four separate respondents talked of physical differences in more concrete ways. R22 and R161 only mention the physical differences when talking of faster game speeds. They note how such are harder to play OTB as the pieces are prone to fall over if the game is too rapid. R30 simply mentions how pieces cannot fall over in digital chess. Finally, R26 is alone in saying that the only difference between the two versions is in the feel and odour of wooden pieces.

Unsurprisingly the smell does not come to discussion of the UI, but the topic of speed does. Several respondents specifically talk of premoves (the possibility of placing your next move(s) during the opponents turn to be played immediately once your turn(s) start) and how they, as a unique part of digital chess, enable faster play of chess. This is showcased in the quantitative data, as faster game speeds were played more digitally.

Another UI specific topic was brought up by R18, R31, R51, and R177. They mention the ability to draw arrows on the interface and how it can highlight possible moves of a piece. This idea is further reinforced by R37, R38, R102, R178, and R185 – all of whom praise the UI for making analysis of both games and mistakes easier.

R21 notes how the small screen is detrimental to the play – and upon further inspection it can be seen that they play digitally on a phone. R69 and R155 mistake the unreliability of either the device or the internet to the UI. Other respondents, like R183 discuss how the digital platform does not allow for illegal moves. R111 notes how on digital platforms, unlike in OTB chess, moves can be taken back and played again. One must remember, however, that this is not standard practice if playing against other humans on most digital chess interfaces.

Overall, the physical differences were not talked of very often, perhaps because they were deemed too obvious to bring up. The differences that were reported were thus related to the other themes, for example on the feeling of realness. On the UI side respondents mainly focused on the benefits it brings to the play.

4.2.2. Environment

In the context of this study, environment refers to the space and surroundings in which the playing happens. Like physicality, direct talk of the environment was limited. Some respondents were succinct when discussing environment, such as R24 who noted that it is different. The most fruitful discussion around environment is limited to OTB chess, interestingly. R30 notes how the air conditioning of the tournament location does not come into play when playing digitally. Though one would suspect that such matters, be it air quality, temperature, or humidity, affect playing just as much when done digitally as it does when OTB. It is interesting how they bring up such environmental factor only in the realm of competitive OTB chess. R128 says that environmental disturbances are a part of the OTB game, but do not talk of them in relation to the other version. This clearly indicates a separation of the two chesses – or at least a separation of their roles.

The argument, we suspect, rises from where and how the games are played – a topic which will be discussed later but must be explained briefly now. When explaining where they play OTB games, the respondents often talked of specific chess friendly environments, such as chess clubs and tournaments. For example, R30 mentions playing OTB chess in tournaments and digital chess casually in the middle of the day to pass the time. If the OTB games are played in a tournament or chess club setting where distractions are limited to the extreme and digital games are played, say, in the bus, naturally the distractions are going to be more numerous in the latter. But as they think of digital chess more casually, they do not worry about the environment of it in the same way they do with OTB chess.

Some respondents discuss environment even on the digital side. Several of the respondents mention how, when playing digitally, there are annoyingly many distractions compared to playing OTB – which we found surprising. After all, digital chess is often played at home where the distractions can be reduced by the respondents themselves. This was eloquently put by R120 who noted that the environment is easier to secure in digital

play and notes how the OTB chess environment can be detrimental for one's focus. R159 makes the same point inadvertently, saying that the temperature while playing OTB is a factor to consider. They do not mention this in regard to digital chess and say that the environment at home can be controlled. R160, one of the people who find the environment more precarious when playing digitally, claim that someone might come and disturb them while playing at home, or that someone might ring the doorbell or the phone. R31 simply says that there are constant distractions when playing digitally.

The environment obviously plays a part in the player experience, yet most of the respondents do not consider it in their responses. Perhaps they think it is too obvious to talk of, or perhaps the environment changes enough to make discussion of it impossible. Interestingly many respondents only discuss the environment within the sphere of competitive OTB chess, as if environment would not come into play otherwise. When it comes to the importance of environmental factors, the context of play is often the determining factor rather than the version of chess.

4.3. Theme 2 – The Other Players

> Playing over the board has a social and psychological dimension that is missing from playing online – and I do not really miss them [online] (R173)

A fairly prominent topic was related to the one sitting across the table – or the lack of them. Chess has been described as combat and has its roots as a depiction of war. Some would argue that separating the opponent changes the game irrevocably. The change from a tangible person within a touching distance to an unseen being behind a name on a digital screen is a hefty one. No wonder, then, that it was popular topic among the respondents.

As we have established by now, the most glaring difference in this sub-theme comes in the form of the opponent. Yet still it is rarely discussed alone. More often the psychological or social side of having an opponent nearby is mentioned as well. Or both, as seen in the quote from R173. Thus, the theme has been divided into two groups: the (perceived) psychological element and the social aspects. The former of which was named so as the respondents brought it up as such verbatim.

One could argue that these topics should belong to the first theme. Although a physical opponent sitting across the table undoubtedly belongs to overt differences, the related topics, such as the social aspects and the psychological element of the game, are more

fitting to the second theme. As the latter are more numerous, the division was done so. Given that the topics are closely connected, several respondents talked of them in conjunction with one another. It is good to reiterate that several respondents prefer physical chess, and some for the reasons discussed in this sub-theme. However, those arguments are not discussed in detail here, though they might be mentioned, as there is a whole theme dedicated for preferences.

While reading the responses, the assumption is, if not stated otherwise, that while discussing OTB the opponent is sitting across the table whereas in digital chess they are not. Though digital chess can be played so that the opponent is in close proximity it is far from the norm.

4.3.1. Psychology

> When playing over the board, one has to remember that your opponent's gestures may affect one's decisions. This must be kept in mind so that the opponent does not manage to hoodwink you with them (R66)

As stated above, the respondents who discuss their opponents in isolation are a rarity. One could argue they find importance in the topic yet fail to articulate it fully. For example, R39 notes that chess is better when there is a physical opponent across the table but does not explain how.

The explanations come when respondents either include the mental aspects or the physical presence of the opponent in the conversation. Crucially, the mentions of such were found mostly in discussion of OTB chess or when a respondent noted the lack of them in digital chess. Often the respondents noted how they enjoyed or preferred the mental aspects of OTB chess. But what do the mental aspects, which the respondents often call psychological aspects, entail?

R10 takes a cryptic approach and gives no explanation, presenting OTB chess as more "psychic". For R130, the biggest difference in the two versions is found in this psychology, which they think brings an entirely new dimension to OTB chess. Similarly, R176 first explains how an opponent sitting across the table will affect one's mental state before naming this a noticeable psychological effect. Seemingly for most of the respondents, in the context of chess, psychology means the physical presence of the opponent and their behaviour. These in turn create two important tasks for the players themselves, the act of trying to deduce what the other player is planning to do on the chess

board with an equally important side job of trying to gauge how they are feeling. The respondents mainly find these lacking in digital chess. Some respondents, such as R186, find it to be a crucial difference between the two versions.

A minority, though a noticeable one, focus on the combativeness of OTB chess specifically. R15 calls OTB chess, and R112 likens it to, a martial art. R163 finds it to be mental fencing. Some take a more gruesome approach, e.g., R59 who, in slight hyperbole, calls OTB chess a battle of life and death and R62 who at first notes the combative nature of OTB chess and then explains how their thirst for victory increases as they see the opponent squirming on the other side. To balance the aggression out, R40 calls OTB chess a peaceful battle. None of them, or any other respondents for that matter, talk of this combat or battle in terms of digital chess. At least to these individuals, it is a distinct difference between the two versions. Two respondents took a slightly different approach, with R155 claiming OTB chess necessarily includes the act of psyching out your opponent and R101 thinks it is, at least, a theoretical possibility.

In terms of digital chess, story was different. R3 claims that, as there is no real opponent, the psychological part of the game is missing. Note how they do not say that it is lacking, but entirely missing. R66, whose unrelated quote started the section, on the other hand notes how the psychological pressure is missing from digital chess. This argument is echoed across the data in more or less severe forms, often through omission. For example, R6 claims that the psychological side of chess is emphasised as one can see the reactions of the opponent. Without bringing up digital chess at all it is clear they think it lacks in the psychological side. R185 specifically states that digital chess has no psychological elements.

One answer from R7 explains the lack explicitly by tying the earlier topic to it. They note how playing on the board is not only a matter of finding out who is better at it, but also a psychological fight. They pin this on the fact that one sees the opponent, the faces they make and their body language – giving one the chance to estimate whether the opponent is clueless or not. To them, the psychological aspect is gone from digital chess.

One person with a widely different view was found. R148 considers the lack of psychological aspects as a good thing for digital chess, specifically mentioning how denies the opponent the chance to disturb the player. Although one must point out that R148 includes more physical aspects in this, including "physically disturbing presence,

noises, and smells". Funnily, R71 gives example of similar physical matters that affect the play. They mention the opposing player's gestures, style of moving the pieces, even the rhythm and tempo of breathing, and finally their scent (e.g., stench of garlic etc.) and so forth. Although they do not take sides in whether such matters are good or bad, they do mention how not being able to predict what moves the opponent is going to make based on their movements is good as one's blood pressure shall not rise ahead of time, as it apparently does when observing the opponent.

To sum up, the respondents generally found that having a physical opponent in view and across the table affects the player experience immensely and positively. Digital chess did not come up in the discussion of these mental aspects, except to express how it lacks in them. The player experience seems, for most, very different in terms of psychology.

4.3.2. Social Aspects

> Playing over the board brings a social dimension to chess, which already makes the experience different. I myself like that social dimension in chess. (R153)

Unsurprisingly the social aspects were the most prominent sub-theme in this theme. The code dedicated to it was used substantially. For the respondents, social aspects often mean the act of socialising with people during the experience, but sometimes the mere presence of another person was enough to consider the situation social. R153, for example, explains later in the quote through an anecdote that it feels different to play chess when someone else is in the room.

In terms of OTB chess some respondents like to talk before the game, some after and some during, though not during tournament play of course. Most often the respondents mention socialising after the game, either to engage in analysis of the match played or simply for chatting. In digital chess, several respondents simply do not chat and thus create no social situations. This complete lack of social situations seems to never be the case in the data in relation to OTB chess. The general idea seen across the dataset was simple, OTB chess is social, digital chess less so. Some respondents, such as R37, R77, and 103, as we've grown accustomed to, simply state it as a fact. R106 provides a slightly different view, classifying OTB chess as social and digital chess as technical. Next, let us discuss the social aspects in relation to OTB chess and then in relation to digital chess.

There were varying ways with which the importance of social aspects to the OTB game was brought up. R109 includes the social part of the OTB game as an integral part of OTB chess, affecting the outcome of the match for better or worse. They, and several other respondents, also mention how OTB chess enables them to see and talk with other people. R66 explains how easy and enjoyable it is to strike a conversation after a game. They also liken the act of making moves in game as a sort of conversation. R135 says the social aspect of having a person sitting across you (and perhaps even people in the room, watching) differentiates the version from digital chess. R140 declares that seeing people and getting to talk with them after the game is the biggest reason for playing in the first place. R170 has a fun, yet macabre, way of describing the enjoyment they find in the social part of OTB chess. First, they explain how they see the opponent as a sort of partner, with whom they 'give birth' to an interesting game. Then they mention how they like talking about the game afterwards in the 'post mortem'. To reiterate, over the board chess is seen more social by most.

Again, there are respondents who defy this convention. R205 finds that there is usually no social contact in OTB chess. R196 thinks that there is usually no social contact even in OTB chess, apart from the handshake and maybe a few minutes of analysing conversation after the game. For them, there is almost no chatting online as well. Slightly similarly but less radically, R191 says that the level of socialness is tied to how familiar the opponent already is to the player. R90 finds that casual games lack a social pressure which can be very intense in a tournament setting. They also say that digital chess has effectively no social aspects, explaining it feels lonelier.

Some respondents, such as R13, make a clear distinction in the social aspects of competitive and casual OTB chess. This separation is logical when considering chess tournaments. After all, traditionally in OTB tournaments one is expected to be quiet throughout the match and the social part of the game is naturally then limited. R186 thinks of OTB chess as a social event, and that in the more relaxed games people joke and chat while in the serious ones the social part is demoted to reading the faces the opponent makes, something other respondents would have called psychological. Some respondents play OTB chess mainly at chess clubs in which the social aspect is magnified.

When talking of digital chess omission is crucial. For example, R35 notes how OTB chess has a social side but does not bring it up in the slightest when talking of digital chess, thus pointing his view. Many respondents do this, noting the socialness of OTB chess without

mentioning it in reference to digital chess. Such responses indicate that they think digital chess has little to no social aspects. Some are more direct. R176 says that the socialness of digital chess is almost non-existent, with players even rarely greeting the opponent. Several respondents also simply note the lack of social aspects in digital chess. So say R11, R61, R72, and R62, who thinks that there is no social side to digital chess as there is no chatting – for them.

Reading between the lines, this idea is repeated by others as well. After all, many respondents write that they do not truly engage in social activities in digital chess. In the realm of the digital social activity is mainly limited to chatting and the respondents tend to mention two types of discourse happening online. One part calls the occasional chat a pleasant surprise and the other note the tendency for nasty, rude, and downright inappropriate discourse. The latter idea of unseemly social conduct is mainly discussed in terms of digital chess, but it will be discussed further in the next section. For now, the focus lies in the social aspects and less their contents.

There were also those who tell of chatting in the digital space as well. R23, who highlights the importance of socialness in OTB chess, also mentions occasionally chatting in digital chess. R34 finds that there can be a social side to digital chess, simply if the opponent wants to chat. R123 simply notes how one can comment about the game whilst playing. R182 mentions chatting with people against whom they play more than once in a row. Though not the only ones who do this, they are in the minority among the respondents. Some people give answers that are harder to decipher as well, such as R137 who notes that the social situation in digital chess is less concrete as you usually do are not in the same space as the opponent, and you do not see them. How social they see digital chess exactly is open to interpretation.

As discussed earlier, some respondents have made the conscious decision not to engage in chatting while playing digital chess. The reasons to abstain from chatting are numerous. It could be due to the fear, or knowledge, of incoming foul language. Perhaps the reason is the lack of common language, as was the case with R108 who notes that the opposing players in digital chess are from across the world, and that they themselves do not know other languages and thus do not communicate. Or it could be something altogether different. R173 has turned the chat in digital chess off for two reasons. For one they simply do not care from them and secondly, they consider digital chess more practical, faceless, and mechanical than OTB chess. R194 states that they have not been looking

for social aspects in digital chess. Overall, the respondents tend to mention the lack of, or at least the limited nature of, social aspects in digital chess in a negative tone. R167 provides an exception, explaining how it is a positive change as they play better without the social situation. R25, one of the four respondents who had played only digitally, explains how the 'asocial' nature of digital chess keeps them in it as they get nervous about the idea of playing live and making mistakes.

On the other hand, a few respondents, such as R30, told of using external applications for communication while playing digital chess. We must point out, however, that this was only in use while playing with friends – in games against random people online, R30 says there is no social element in digital chess and how it would merely be annoying if someone tried to talk while playing.

The analysis becomes slightly harder when considering respondents such as R133. R133 specifically notes how they enjoy the social side of OTB, but simultaneously say that one cannot talk in digital chess. As is evident through the responses of others, there are various sites and platforms on which to play digital chess that give an option for chatting – so is R133 simply on sites that do not allow it, or have they purposefully (but without disclosing reasons as to why) turned off the option for chatting, or do they simply find it too different to the social life of OTB chess?

It is good to remember respondents describe different types of social in their responses. If pondering the way one can socialise while playing, one might think of socialising before the game and one of socialising during it. Others write of the social occurring by the mere presence of another. In an official tournament setting, for example, the social originates from the other players but no-one is to speak during the play itself. For those who play in a team the social aspect might originate from their teammates, not from direct communication but from having to worry how their matches are going. All in all, the respondents generally see OTB chess as social and see it as a positive influence on the experience. Digital chess on the other hand is considered lacking in this department, which consequently was often thought of negatively.

4.3.3. Inappropriate Conduct

As discussed earlier, some respondents reported facing inappropriate behaviour in the realm of digital chess. Albeit it also goes beyond the spectrum of social, it is mainly situated there and thus discussed now.

In terms of OTB chess the worst infringements found were respondents noting how it might happen in physical situations as well. Only a few respondents mentioned their personal experiences. One of them, R35, tells an anecdote relating to an OTB incident in which the rules were disputed. Yet in their case the opponent merely got angry and left the tournament. R13 on the other hand explains how they get annoyed if the opponent does not play gentlemanly.

On the other end of the spectrum the most extreme case present in the data comes from R153 who mentions receiving a spontaneous death threat while playing online. This level of nastiness was not noted by any other respondents, but it is a clear difference to the (perceived) eloquence of OTB chess – sometimes also seen digitally, of course.

R128 accounts the occasional bad behaviour to the anonymity of internet, saying it attracts those with disruptive tendencies. R153 agrees, noting how similar filth is common in internet anonymity. We all know what online dialogue can devolve to, so it is no surprise some respondents told of simply blocking the chat altogether.

Most respondents who touch upon this talk in more broad terms of inappropriate behaviour. R100 and R146 talk of receiving unpleasant and hostile messages respectively. Others take a less direct approach, like R164 who prefers OTB as it has less disruptive behaviour. Similarly, R13 mentions unsportsmanlike behaviour as a possibility for digital chess.

Disappointingly, it also seems that the only mention of non-game related messaging on online chess platforms came from a female respondent, R37. Albeit they did not claim said messages were negative or inappropriate, they did specify the messages usually came from men. Though several male respondents said they receive messages from opponents from time to time, she was the only one specifically mentioning non-game related topics breaching the discussion – and is thus interesting to think about even if the contents of said messages are unclear.

4.4. Theme 3 – Differences in Play

What about the differences in relation to the gameplay itself? Although the digitization of chess has left the pieces and the rules untouched, does it still change the way the respondents play and see the game? The focus in this chapter is on whether the

respondents feel playing in one version is easier or more difficult than on the other, or if they think strategizing is different on the versions. This theme is divided into three sub-themes: visualisation, changes in play, and cheaters.

4.4.1. Visualisation

A key part of chess is visualising where on the board all the various pieces are. Although some players can play blindfolded and visualise the playing field mentally, most prefer looking at the board and pieces. R110, like some other respondents, states the obvious and discloses that the visualisation is different on a screen and on physical board. But is the different presentation of the board more impactful for other players, perhaps even affecting how the players see moves and the pieces?

> The game is exactly the same online as it is on the board, except online you look at a 2d board and in "real life" at a 3d board. Some visualise and calculate better on a 2d board, others on a 3d board. It probably depends a lot on what you are used to. (R124)

The R124 quote above embodies the more moderate views on the issue well. Like many respondents, they find that chess is chess no matter the platform. For many this is true, even if the experience is different. More importantly in relation to visualisation, they find that it is related to what the player is used to. This is repeated by many in the data. R86 and R34 explain how their visualisation, and consequently their level of chess, is slightly weaker in digital sphere as they have played less of it. R173 visualises better on a digital platform, but also notes how they have played more digitally. Others who did not specifically mention it might think so as well. For example, R118, who notes the view is completely different between the two and thinks that hey find better moves in OTB chess, also mentions how they have played more chess OTB. Though the link is not certain as they themselves did not confirm it, it seems plausible.

Several respondents, however, did not mention whether their differences in visualisation could be down to how familiar they were with a version or another. Either they had not considered it or did not write of it for some reason in their answers. Respondents such as R162 state they 'see' better in OTB chess but do not explain why that might be. R199 reports how OTB chess feels more concrete and that they visualise positions better in it, whereas R28 finds the three-dimensional platform easier to visualise.

A significant portion talked of visualising better on a screen without thinking of an explanation as well. R11 thinks they visualise better digitally, R42 finds the UI in a certain undisclosed way helpful to visualise the game, and R172 and R177 think some things are easier to see digitally. R136 finds visualisation in digital chess is less cumbersome and R183 thinks its clearer.

One respondent, R153, thought the reason is related to time controls rather than on the time spent on playing. To them, the visualisation feels different, and they feel like they have played better chess OTB – but concede its likely due to the longer time controls they use in OTB chess.

Two respondents talked of the potential issues of playing on two vastly different platforms. R4 notes how they have trouble with visualisation right after switching from digital chess to OTB chess. To them visualisation is not worth discussing otherwise. R77 mentions the same, saying that it takes a while to get used to playing OTB after digital chess. Other two respondents brought up the topic of, what they called, 'chess blindness'. Interestingly the first one of them, R101, found it happening more in digital chess whereas R115 considers it happening more easily in OTB context.

The respondents were divided on visualisation and both versions were seen as easier to visualise in by some. For most respondents, however, visualisation is a matter of how accustomed one is to the version in question. For them, it seems, both representations of the board and pieces are sufficient and do not affect the experience too greatly.

4.4.2. Change in the Play

One relatively straightforward metric of comparing the player experience would be to consider the playing itself. As playing the game is a common denominator, changes in the level of playing could provide some insights. Unfortunately, most respondents who touch upon this sub-theme simply talk of how faster games are better played digitally and longer better played OTB. This could have been deduced from the quantitative data as well.

A rare admission comes from R1, who thinks that they play better in OTB games. Right after they note how they lack focus in digital chess and play more aggressively in it. Similarly, R147 claims their OTB games are of higher quality chess wise. Neither

respondent go deeper into the reasons as to why, so one can only guess. R204, who shares the same sentiment, concludes that their mindset has something to do with it:

> In contrast to live chess, online chess is more carefree. A new game is found immediately, everything seems to be more final in live matches. Although there will be more live tournaments and games, one must always wait a little longer. Maybe this is part of the reason why, at least for me, live games have been of better quality than online games. (R204)

While it is impossible to say whether other respondents feel the same way, it would be easy to believe this as a reason behind the comments of R1 and R147. Or the comment of R57, who finds that it is easier to win against better opponents but also easier to lose to worse opponents in digital chess. Though they offer no explanation, perhaps the respondent and the opponents they are considering are enforcing the carefree attitude of R204. Possibly so is R12, who admits making more mistakes digitally.

R199, who admits approaching digital chess more casually, claims that it's easier to keep playing digitally even if the opponent has a material advantage in the game. This is interesting, as most respondents, if they touched on the subject, felt the opposite. Take for example R37, who feels that opponents cease playing more readily in bad positions when playing digital chess. They also think it is due to the possibility of simply closing the device and that it goes against the etiquette of chess. R14 admits to resigning with ease after small mistakes in digital games and R64 says that, as one does not see the opponent and rarely knows them, it is easier to find surprising moves but also easier to resign if the game goes sideways. As they do not talk of such behaviour in OTB chess, one tends to think they are thinking of digital chess more casually.

An interesting little discussion is found in the text of R3. They think OTB chess is more motivating but also note how the players in general are often much better than digitally. This is an interesting concession, given that on most chess websites the quality of the opponents varies greatly on a few user made choices. For one, if the player chooses to play games that affect the player's rating on the site, their opponents will then be of similar level, or rating. On this topic, R71 makes the casual versus competitive divide in digital chess as well and notes how they affect their focus accordingly. Just to show how varying the results, and people, are, consider the view of R97 and many others, who praise digital chess for its ability of providing more well-matched opponents.

Quite like in terms of visualisation, the respondents did not agree on whether either version is easier to play. Instead, these responses showcase how the context in which the play happens seems more important than the version of chess to the quality of chess.

4.4.3. Time Controls and Cheating

> There is no fear of cheaters on the board. (R14)

Some respondents discussed in detail why they usually prefer playing digital chess with faster time control and OTB chess with slower. Two main reasons were presented, mechanics and cheaters. As we can see from the R14 quote, many respondents feel that cheater are abundant in digital chess but nowhere to be seen in OTB chess.

R192 admits preferring OTB chess in general and especially in longer games, yet still considers digital chess better for faster games, purely from on a playing point of view. They give examples of how the clock can be trusted and people cannot, accidentally or on purpose, block the opponent's hand in time trouble situations. R20 adds that players cannot make illegal moves and R48 finds this makes digital chess more approachable for beginners. R35 explains the mechanical difference, stating how making moves is simply faster in digital chess. They describe how a minute of time in digital chess will allow for considerably more moves than a minute in OTB chess. Pre-move is mentioned as a crucial part, as it can save considerable time. For R146 pre-moves change, when comparing digital to OTB chess, not only the experience of faster chess but also the playing tactics. It bears to mention that some respondents did lament their habit of mistakenly placing pieces on wrong squares while playing digitally, although it was brought up in relation to OTB chess as well from time to time.

The other side can be seen in the discussion of cheating or cheaters, which almost inclusively happens in the context of digital chess – similarly as poor conduct discussed in 5.2.2.1. Again, a reason for playing shorter games digitally given by several respondents was the cheaters that were bound to show up in longer games. For example, R23 thinks so and has thus played longer digital games very rarely. Digital chess differs greatly from OTB chess, thinks R203, as you do not see the opponent and cannot always be sure of their fair play.

For some cheating is even more malicious and for some more widespread. R47 thinks it is too easy to cheat in digital chess and, consequently, they have less trust in their digital

opponents. On the other hand, R68, who reports that online play has its own problems, thinks that cheating happens very often in online chess and even in insignificant situations. For R166 it is a large problem. Additionally, cheating was never referring to OTB chess in the data.

The consensus seems to be that in shorter games the cheaters would not have time to cheat and that the digital interface enables faster moves than the physical one, giving us two reasons to prefer playing shorter games digitally.

4.5. Theme 4 – Affect

> On an emotional level chess can be very brutal, which is emphasised when playing OTB chess, when one's commitment to the game and its result is higher than perhaps when playing online. Chess has no luck; each mistake is caused by yourself. Losing can be as good as winning, if you feel that you have played at your own level or even beyond it. Sadly, the quality of chess can often be affected by one's own strength and mental state, which might lead to the chess being spoilt completely if you yourself have started hesitating or become anxious while playing. Sometimes after games I experience great exhaustion, frustration, and downright depression, but for some reason each of us will eventually drag themselves back to the board. We all search, as addicts, for the feeling, when everything falls into place, and you yourself play as good chess as you can, be the result a defeat or a victory. (R31)

This theme focuses on the emotional, such as feelings, and on the experience and atmosphere felt by the respondents. Albeit most respondents did not quite go to the lengths R31 did, the quote portrays well how full the experience of chess is for some of the respondents. Important topics found elsewhere in the data are evident in this quote. They, like many others, commit more in OTB chess and its result. As a result, the experience is fuller and more fulfilling. R31 also represents a smaller group who talk of the quality of the game or the beauty of chess being the goal they aspire towards to. Others perhaps think so as well, but only a handful wrote of such lofty ambitions. In fact, others go out of their way to present a different view, such as R38 who speaks of what is their primary aim for playing both of the versions. They play OTB chess to learn and digital chess to make results, or, as it probably can be interpreted, win.

Additionally, the quote presents well how prevalent the topics such as emotion and the importance of a result can be. Considering how the respondents, for the most part, did not separate the two chesses, it is not a surprise that several of the respondents instead

explained the differences in matters such as their mental state and emotions when playing. Next, we will discuss the main sub-themes of this theme in detail.

4.5.1. Focus

One aspect several respondents talked of was their focus. Some respondents, like R1, R67, R47, and many more, flatly state that they focus better with OTB chess. R135 finds that focus comes easier as there are other people in the same space. For R8 digital chess is harder to focus as you do not see the opponent. R3 on the other hand explains how they cannot muster enough strength to focus on digital chess. R81 echoes this, saying how they cannot focus on online play. Interestingly R81 specifically says that they, themselves, cannot but others might. Few respondents speak of focus through thinking. For example, R154 mentions thinking more while playing OTB chess.

R14 and R184 explain this through the versions themselves. To them digital chess is more casual and thus their focus is sometimes lapsing. OTB chess, on the other hand, is very intense and requires a deep focus. A slightly similar response comes from R13, for whom the level of focus even in OTB chess depends on the situation. They explain how a tournament situation, naturally, makes one more focused. Respondents like R104 and R135 also note how they focus more while playing OTB chess as they take it more seriously.

As always, the opposite view is found as well. R24 simply writes that they focus more when playing digital chess. R120 has a similar idea. They explain that, as digital chess lacks the social elements of OTB, one's focus is in undivided fashion on the game itself. On a slightly unrelated note, few respondents, such as R98 and R99, report that playing and focusing is easier against people they know.

Nevertheless, it seems that the context of play affects the level of focus more than the chess variant even though some report focusing more when playing over the board or digitally. As we saw earlier in the quantitative results and in this chapter, the respondents tend to play quicker and faster matches digitally, and longer ones over the board. Longer games would require more, or at least longer periods of, focus, so perhaps this is not too surprising.

4.5.2. The Weight of the Result

One aspect already mentioned briefly is the importance of the match or a result. As we saw, some respondents put more weight on one version or the other, perhaps calling the other casual for example. The same OTB preference can be seen here, with respondents who touch upon this subject more often than not finding that the result of matches matters more when playing OTB. For example, R141 finds that the result of a match, be it a win or a loss, affects them more in OTB chess. Others simply state it, e.g., R10 or R32 for whom digitally the result does not really matter and OTB each game feels important. R91 has similar ideas and finds that games are rarely as important and serious digitally as they are live.

As always, some respondents disagreed and found digital chess results more meaningful. R176 does so but presents a rare view. For them the result matters more in digital chess, due to the rating on the chess website. In OTB chess, however, the importance is found in creating a "good match" – they go as far as to say that if the game ends abruptly, it leaves a bad taste in one's mouth, as the desirable "good match" was not achieved. In such a case, they conclude, the game is not worth playing.

The seriousness is a topic breached again. For example, R41 does not take digital chess as seriously, simply because the online rating does not matter (to them) whereas the OTB rating does. R132 takes OTB more seriously, without explaining why. R16 finds OTB, in a specific yet undisclosed way, more serious whereas how digital chess is simultaneously serious and light-hearted.

Often the ways with which the variations are used is at the heart of the issue. Take for example R9, who explains that for them digital chess is usually an act of playing around and that they find OTB chess more 'real'. Or R104 and R107, who explain digital chess to them is a way to spend the time – both explain they do not take it too seriously. R42 notes this themselves as well, specifically saying how they take digital chess more lightly. R180 finds the reason from why the versions are played, explaining how OTB chess is played for real and for the (chess) club, honour, one's rating, or something akin to those things. In digital chess, at best they say, for one's username. Again, these examples touch upon the issue of preference and motivation, which will be discussed in detail later.

For R2 the difference is simple, explaining how playing at the chess club is always serious business whereas playing on the toilet, or digitally, is rarely so. They might have tried to

be humorous, but the point is still valid. R170 has a more eloquent take on why they take OTB chess more seriously. For them, digital chess is not only lacking on the social side, but it also ties into one's everyday life differently since it lacks various rituals that OTB chess has. They mention two, having to arrive at a location and having a chat with the opponent. Thus, after the game OTB chess feels more meaningful than digital chess which is surrounded by ordinary chores.

Naturally others focused more on other aspects of the game. Some combined them, like R181. For them the social aspect affects how seriously the two are viewed – OTB is taken more seriously and digital not, since you do not know anything about the opponent and the games are not discussed afterwards. R33 echoes this, saying that the stakes are higher if the opponent is someone they know.

The results here follow the now familiar pattern, with OTB chess in the spotlight for most. Though R176 found digital chess results more meaningful, the majority of respondents discussing the importance of the result thought it was greater in OTB. It was clear, however, that the context in which the matches were played was often more important factor than the variation itself.

4.5.3. Experience and Atmosphere

Some respondents took to explaining the differences in the atmosphere while playing one or the other. The atmosphere discussion proved less insightful than expected with fewer respondents taking part in it. Most likely this, more abstract topic, blended in with other topics like it.

For R93 it was enough to specify the atmosphere is different. R83 and R107 explain how the atmosphere is a crucial part of the OTB chess experience missing in digital play. R204 echoes this but adds that they think digital chess is more carefree.

Opposites can be found yet again, surely enough. In one corner R200 finds the atmosphere of OTB chess intense and in the other R136 views it as casual. R90 does not pick sides but instead differentiates the atmosphere of OTB chess with the now familiar separation between competitive and casual, betraying how the atmosphere is dependent on the underlying context.

Some respondents spoke of the experience itself. As expected, the preference for OTB chess is shown. For R10 playing in OTB tournaments is an all-encompassing experience. R38 drops the requirement for tournaments, but notes that the experience in OTB chess is more comprehensive and heavier than online, but often more rewarding as well. Similar idea is made by others. R42 for example remarks how the long OTB games are, at best, amazing experiences – but also mention how they play such games rarely as they take too much energy. R133 repeats that such games are exhausting but finds that they provide a fantastic experience chess wise.

R202 finds that the physical pieces and board make the experience more enjoyable and exciting. They clarify that they mean that in OTB chess the game is always a 'larger' experience and even leaves the player in a better mood. Plainer differences are pointed out as well. R153 points at the social difference as a reason the experiences differ. R185 and R146 find the experience simply different. So does R190, who discloses they do not know how to compare the experience. This time R142 is the one who notes the difference in experience changes with different contexts. For them the experience at a chess club is fun and social and at a tournament more stressful. They also find digital chess more freeing.

Unlike in most other sub-themes or themes, the two variations were not found by anyone to be completely similar. Some respondents did, of course, but did not discuss it directly in their responses. The closest one is R160, who finds the experiences very similar apart from the lack of psychology in digital chess.

Atmosphere was not discussed in depth by the respondents. The topic of experience provided more insight, and the common response discussed the positive but exhausting experience of OTB games. Interestingly digital chess was rarely considered in the context of atmosphere or experience. By this omission it seems that the respondents do not consider the atmosphere or experience of digital chess to be as grand as the OTB variant. Whether this is due to the context of the version is hard to say, as it became evident that the responses written on these topics are massively tied to the context of play and are hard to interpret without knowledge on the context.

4.5.4. Feelings

Feelings, as the largest group in this theme, were naturally on the minds of many respondents. To consider the emotions evoked during playing should be considered a

good way to gauge the player experience. This intangible topic can give solid insight into the differences between the versions, though it is also one of the hardest to interpret.

Some talked more in overarching terms. R130 and R65, for example, explain that OTB chess evokes feelings. R54 is more descriptive, explaining how in their opinion digital chess is missing a certain pervasive happiness while nothing that OTB is also always compelling and intriguing. R56, who at first talks of playing frequently online, notes how they get no emotions from digital play but finds them again in OTB chess. R62 is on a similar track, explaining how they lack the same drive for victory in digital chess and notes how losing does not bother them as much in digital chess. The games do not evoke feelings or raise his pulse, which they think is the greatest fault of digital chess. R82 has similar notions and says that digital chess has no sentimentality. R185 states his preference and explains how OTB chess is more fun and the drive to win is higher in it.

Referring back to the 'battle' metaphor used by some and talked more in 5.2.1, R137 remarks that playing OTB chess makes the 'battle' more intense. They do, however, find fastest games played in digital chess as something that can be even more intense. R112 finds the mental stakes to be extremely high when playing face to face against a human. For them, no matter how you set about to think about the match, you have this innate desire not to lose that creates immense tension. Perhaps it is the reason they also mention being more interested in the history of chess rather than actual playing.

A section of respondents talked more specifically of excitement. OTB chess was, as we have come to expect, the more exciting one for a large chunk of respondents. R21 extends the excitement to include the period before a game, explaining how the tension rises even before the OTB game starts. Respondents such as R23, R127, R144, R145, and R175 simply state that OTB chess is more exciting. R162 finds it occasionally so. R143 and R157 think that winning in OTB chess tastes sweeter and losing more bitter. This could easily mean that the emotions received at the end of a match are enhanced.

R150 notes how they think the essence of chess changes when going from OTB to digital chess – yet they do not explain it more than by claiming OTB to be more interesting and meaningful. Some seem to agree. E.g., R167 who claims that the difference is vast enough that they would call the two versions different games. R32 does not comment on how exciting OTB chess is but thinks that digital chess is only slightly more exciting than watching the television.

In the middle of the argument, we find respondents such as R95, R120, and R194, all of which find excitement identical in both. R116 comments that the enjoyment found in a good move is similar as well. Interestingly, digital chess does not get such mentions of excitement apart from the calls of similarity. R78 compares the excitement in the two through time trouble, saying that in OTB games it is dramatic and hectic, and that in digital chess the players simply fumble as much as they can. Staying with time trouble, R12 notes how they get nervous in it while playing OTB chess and that they do not get nearly as nervous in digital play. As a contrast they bring up how they might get annoyed by a losing streak in digital chess.

Speaking of which, annoyance is a recurring topic. R13, who might get annoyed at an OTB opponent who behaves poorly, finds that playing live evokes more feelings towards the opponent. R49 presents an interesting contrast:

> Playing on a digital board evokes feelings of irritation or excitement more easily because there is no need to hide them. During physical board games, self-control and etiquette are important. (R49)

As there is no opponent present, one does not have to hide their emotions from prying eyes. Though not giving the same reason, R186 notes how they might get properly angry at themselves in digital chess but not in OTB chess. Slightly similarly R92 mentions how they get annoyed if making mistakes in digital chess without commenting on OTB chess. R182 tells of easily feeling negative while playing digital chess and finds themselves more positive in OTB situations.

Boredom is another recurring subject. For example, R14 notes how long games in digital chess are easily boring. R55, R117, and R84, who find OTB chess exciting, simply state that digital chess is boring. R76 finds digital chess rather boring and says it lacks personality.

Others wrote about how stressful the variations get. Here we see a repetition of what we saw in excitement as respondents tend to find OTB chess more stressful. R112 even avoids OTB chess as they find it always stressful. For others, such as R115, the OTB variant is sometimes more stressful. R46, R168, and R197 approach it from the digital side, noting how it is less so. Similarly, R152 thinks digital chess less stressful and thus more fun. R119 finds digital chess more relaxed and finds stress only in competitive OTB games. R198 has a different outlook, finding games against unknown people online

stressful – they specifically mention how a part of this stress comes from the fear of losing.

On the other side of the coin is relaxation, which R161 finds in digital chess as opposed to the stress of OTB chess. R109 does not separate the two, remarking how chess in itself is relaxing no matter the version. Slightly related to relaxation is the casual attitude several respondents approach digital chess with. R161 thinks the casualness of digital chess makes it more fun and says that live chess is often too serious. As an exception to the rule, perhaps, R134 reports that for them digital chess is more serious. They also state that digital chess is more competitive than OTB chess for them and that they think they find digital chess might be more strategic.

Some respondents found OTB chess light-hearted as well. For example, R158 explains how playing OTB chess (for them) is casual and informal. Several respondents found OTB chess casual, but most of them separate between casual and competitive chess. Such cases approach the two entirely differently, e.g., R13 who explains that competitive chess is more focused and serious with a no-quarter attitude and how casual chess played, for example, at a bar, highlights the social aspects.

Some topics were less common within the sphere of emotion but still worth a mention. R1 for example thinks that OTB chess feels more authentic. Perhaps this is a natural feeling, as it is the older version. This idea is repeated inadvertently by others who refer to OTB as 'real chess', who will be discussed in 5.5.3. R187 on the other hand thinks that digital is more carefree and that OTB chess is more interesting and humorous. Most likely by more humorous they meant more social, but it is worth noting just in the case they did not.

A brief mention should be made of the respondents who had played only one of the versions. Only one of the five respondents wrote of emotions. R48, without ever trying OTB chess, starts by saying how digital chess has less emotions associated to it and that the games are less important compared to matches played at OTB tournaments before moving to explain that even digital chess games, if one plays only digitally, occasionally become very emotional. How R48 derived this was the case without their own experience? One must assume they have consumed media in relation to chess and deduced that emotions must be stronger in it.

As this sub-theme is about a vast topic, it had to include an assortment of emotions some of which were more commonly discussed than others. For example, the respondents often wrote of excitement, stress, and annoyance. The most important finding of the sub-theme, however, is how predominantly the respondents found OTB chess more evocative. Additionally, few interesting yet individual responses were noted, i.e., how longer OTB games are rather exhausting and that some find live chess too serious.

4.6. Theme 5 – Respondent Motivations and Preferences

One is tempted to wonder, whether preferences originate from motivations or vice versa? Or are they perhaps completely unrelated? Whatever the case may be, to understand the respondents' views on player experience it is crucial to comprehend their preferences and motivations.

In this section, the preferences of the respondents will be examined in detail at first, followed up by their motivations and finally a brief look is taken at a small group of respondents who consider OTB chess to be 'real chess'. As with earlier sections, not all of the matters mentioned by respondents fitting for this theme will be mentioned here. Some of them have been mentioned earlier and some will come up later, but the focus here will again be on the most numerous and interesting ones.

To keep things orderly, the discussion here is divided into two main parts with some overlap. First focusing on the what, as in what the respondents use the versions for, and then on the why, as in why they use the versions respectively. Before them, however, we will take a look at preferences.

4.6.1. Preferences

As we have established already, OTB chess was referred often as the preferred version. Reasons for preference of OTB are as numerous as the people who admit to it. Many call OTB play more pleasant and naturally some simply state their preference. Many, e.g., R12, R5, and R43, point to the socialness of it as the main reason. Some, like R17 and R175, call it more fun and thus preferable. R27 places the blame on the psychological battle. R39 and R61 thinks it is more sensible than digital chess. R67 thinks OTB chess is more interesting and so does R136, who in addition finds it more relaxing and pleasant. Others, e.g., R69, R75, and R100, refer to the physical elements as the reason for their

preference. Some betray their preference by stating their dislike of the other option. R29 simply mentions it. R140 explain that they do not find digital chess interesting. Others are more creative in their descriptions, like R7 who compares digital chess to stale beer or spoiled food.

Not all are opposing digital chess, however. Then again, there are only a handful of respondents who prefer digital chess outright. More often the two variations are separated to different roles to excel in. This way both are preferred simultaneously in their separate spaces. The common separation, as seen before, is that of digital chess for faster games and OTB chess for slower ones. Or digital chess as the more casual and OTB as more serious. Both examples have opposing views, of course. For example, R103 plainly states that faster games are more fun played digitally. R124, while saying they prefer OTB chess, applauds digital chess for its use in faster speeds and with different chess variations.

One of the youngest respondents, R63, might be an example of a change coming in the future. They report finding digital chess more natural, the moves faster and the board easier to visualise than in OTB chess. Yet still they remark that they focus better in OTB chess, unless playing against someone they know. R68, while on their fifties, report finding OTB chess too slow and cumbersome and that they prefer digital chess for its ease. On a similar note, R116 remarks that the ease of digital chess has led to them playing solely digitally nowadays.

Surprisingly many respondents did not discuss any differences between the two yet still they mention how they prefer playing on one over the other, usually preferring over the board. E.g., R81, whose only argument for their preference is that digital chess lacks the satisfaction they get from OTB chess. Overall, the respondents prefer OTB chess, with some preferring digital chess as well. Most interestingly, however, several respondents who prefer OTB chess for the most part still prefer digital chess when playing with faster time controls.

4.6.2. Motivations

Motivation was one of the most discussed the topics. The largest subject within it was the motivation to use chess as entertainment, or a way to pass the time. For many this was the main motivator for playing one or the other variation. Often the variation meant by this was specifically digital chess. This is not to say that OTB chess is not entertaining,

on the contrary. Usually when a respondent disclosed entertainment as a source of motivation, they did it while raising OTB game to a loftier standard while keeping or demoting digital chess to mere entertainment. In such cases entertainment as a motivator was only mentioned in reference to digital chess. This is clearly seen in the example of R2, discussed in 4.5.2, off-colour as their example might have been.

For a less coarse example, consider R26, who remarks how in OTB chess the motivation is found through competition and in digital chess through entertainment. Again, for these respondents' digital chess is often seen as a way to pass the time. When talking of motivations for OTB chess R33 brings up the potential for success, to raise their rating, and the social aspects. A paragraph later and they mention the motivations for digital chess are the want to relax, desire to try new openings with their mind in OTB chess. For R84 digital chess is pure entertainment and OTB chess is exciting competition, the creation of their own 'work of art', a tool for self-improvement, and the occasional source of meditation. A milder version of the same idea is seen from R107, who explains how they play OTB chess for the excitement and digital chess just to spend time.

> I prefer to play quick games online, because so-called interpretable positions happen less often there: pieces do not fall, you cannot make illegal moves, etc., which are often disturbing in a close game. Handy when you can play anywhere (mostly at home) and anytime - there are always opponents. (R20)

In the above quote, R20, who finds more enjoyment from OTB games, presents both the common preference for digital chess in faster games, but also the common motivations for playing digital chess. Convenience was mentioned by a large contingent of the respondents as a reason they play digital chess. Be it the ease of finding opponents from all around the world, the plain easiness of getting a match going at a time of your choosing, or the possibility of playing different variations of chess, digital chess is seen as an approachable and easy option. R191 praises the fact one can play a quick match while waiting. R52 notes and compares how digital chess can be played at one's own leisure and OTB chess only when time has been set aside for it. The preference of OTB chess was visible even here, as R9 wrote that they would forgo digital chess if only OTB chess was as easy to access.

Some found this ease leading to excessive playing. R141 explains this through an anecdote, in which one might plan to stop playing at 12 p.m. but will find themselves still playing at 02:30 a.m. Naturally this sentiment was not found in relation to OTB chess.

R185 laments how easy it is to be hooked on digital chess, even if playing that much would not feel pleasant.

One main reason for playing digital chess is, for many, practice. Mainly for OTB tournaments and games, as is the case for R66 for whom digital play is for practice and OTB play is for proving one's ability. Or for R101, who uses digital chess if not for improvement, then at least to keep their skill level unchanged. Similarly, several talk of using digital chess for trying out new openings – usually with the OTB chess games in mind. R43, for example, takes digital chess less seriously and can thus take more risks or try new things while playing digitally. No one brings these two major categories up as motivations for playing OTB chess. In many ways digital chess is used as a method of propping up OTB chess or at least as a way of improving one's chance to succeed while playing over the board. Certainly, we cannot expect respondents who treat digital chess as a practicing platform for OTB tournaments to think of the two in equal terms. For one who thinks in such a way, the two are inherently different and the experience will be accordingly different.

It bears to mention that there were other non-motivational mentions of practice as a topic. One main one was to praise digital chess as a practice platform. Many, such as R72 and R128, explain the boons of digital chess in such a way. Though some, like R125 take it further and say they use digital chess less for playing and more for learning.

For 169 OTB chess is for competition, prizes, and socialising, whereas digital chess is a way to spend time and to have fun. Even R63, who speaks of the enjoyment of the game and will to improve as the main motivations for chess in general, finds the want to win competitions and the social aspect as the motivation for OTB chess. Digital chess, they say, is principally for spending time. R168 distances digital chess even further away from OTB chess, reporting that digital chess is for when they have nothing else to do. Other views exist of course. R19, for example, places entertainment as the only reason for playing chess in any variation. For R34 motivation for OTB chess is meeting friends and for digital chess in spending time with a good hobby.

Social aspects come up time and time again in reference to OTB motivations. Take for example R193, who says that the competition and the social event are what drives them to play OTB chess and in the digital variant the aim is to spend time and maybe get some practice in. When comparing the two versions they start from a biased position – or at the

very least an imbalanced one. Of course, there is nothing wrong in doing so and separating the two like this is helpful information in itself. It simply is something to consider. R193 is an exceptional example for one additional reason, the fact that they effectively see nothing in common between the two variations. They also note how this might be the case because they play OTB chess only in competitive settings.

R8 works as a good example as well. In the same sentence they first write of playing OTB games usually in a tournament setting and digital ones simply for fun or practice before writing that OTB chess is still undisputedly more fun. This is invaluable information of course, as the respondent clearly states they think the player experience is more entertaining in OTB chess. Yet still one is left to wonder whether playing over the board is truly that much more fun or if the context is at play here.

Finally, a brief list of the more universal (i.e., used for both variations) topics reported by respondents. For some, the use of chess as some sort of intellectual practice, a method of keeping one's brain active, was a motivation – often for the older respondents. A large contingent mentioned the desire to learn or improve as a reason for playing chess altogether. In the same vein chess was seen as a way to challenge oneself. The desire to win was also a fairly popular topic. Some reported the love of chess was enough to keep them playing. To wrap the 'what for' portion of this section, a small group declared that they are motivated by the beauty of chess, usually in any form. Still, some were very specific on which version – such as R29 who particularly mentions such an allure as a motivation for OTB chess.

R4 gives an answer that works as an exception, mentioning internet friends, or the social side, as a motivator for digital chess. R183 is a similar example, explaining how digital chess is a good way of keeping in touch with friends further away. Both, however, note that OTB chess is more social. Though competition was mentioned as a motivation on the digital side as well, it was usually done so by discussing one's rating and the desire to raise it. R176 for example comments that the main reason they play digital chess is to follow their rating and through it keep tabs on their skill level.

In terms of motivations, the combination of social aspects and competition them for OTB and convenience for digital was a common one. For example, both R18 and R155 find their motivation for digital chess in the convenience and for OTB chess in the social or competitive situation. OTB motivational social aspects that were seen in the discussion

of social aspects of 5.2.2. were repeated, be it by a chess club, like for R18, or in the way one can see old friends in, like for R155. Naturally, the respondents who play tournaments as a part of a team were the most eager to mention both the social and the competitive side simultaneously as OTB motivations.

To summarise the findings within motivations, main motivations for the play of digital chess were its convenience, desire to practice, and the use of it as entertainment or to pass the time. Over the board chess, on the other hand, was principally motivated by social aspects and competition.

4.6.3. 'Real Chess'

Although many respondents consider chess as chess no matter the format it is played in, a subsection of the respondents felt adamantly otherwise. For them OTB chess is the 'real chess', and the digital version a pale substitute trying to mimic the original.

Interestingly the people who talked of this effectively always insisted on the quotation marks around 'real chess', which is why they have been included here as well. These respondents, like R22, R79, R82, R128, and R143, simply called the OTB variant 'real chess'. R196 remarks that they have always thought of the two as separate entities and places OTB as 'real chess'. A few of them bring up certain requirements that must be met, such as R20 who refers to longer OTB games as 'real chess' or R54 who needs a physical board and a chess clock.

In a slightly different approach respondents R9, R26, and R164, wrote that they find playing OTB chess more 'real' than playing digital chess. Perhaps to them both versions are equal, but they simply feel more real playing over the board. Nevertheless, the quotation marks are taken from chess and left only for real. R151 is coyer, and avoids saying it directly, instead opting to say that OTB is sort of the 'real way' of playing chess. Then we have one of the more scathing remarks of the whole data are courtesy of R29, who calls digital chess fake and not real chess – forgoing the quotation marks entirely.

Others do not bring the word real into the conversation yet clearly show that they view digital chess as a lesser version. For example, some, like R10, refers to digital chess directly as a substitute version. Some talk of this idea more offhandedly, maybe without being aware they do so. For example, R41, while talking of how differently they take the

variations, call OTB competitions real tournaments. R156 repeats this, both apparently thinking OTB tournaments are more genuine representation of chess competitions.

On top of these clear-cut examples, there are those who use different words to portray the same idea. To give some examples, R125 calls OTB chess authentic, R127 'truer', and R135 as real chess. R67 says playing digitally, while all well and good, will never beat the feeling of a real match. When comparing the two, R203 says digital chess is widely different from regular chess. R82 bemoans the lack of personality in digital play. Using words like true, real, and regular to describe OTB chess showcases clearly how they consider the digital version to be the lesser option of the two.

There is another, smaller, yet slightly similar subsection of the respondents who think of chess extremely seriously. They refer to chess as a way of life, but they tend not to separate the two and follow the idea of chess being the same no matter the variation.

Few more follow right behind these respondents, saying that chess is more than, well, chess. References to sport are there. For example, R62 compares chess to any other competitive sport and for R3 OTB chess is more like a sport. R109 simply states OTB chess is more than chess, due to the psychological and social aspects. They describe OTB chess as is for playing against a human and digital chess is playing chess.

5 DISCUSSION

The aim of this thesis was to answer two questions, the first of which was whether the player experience of over the board chess is different from the player experience of digital chess.

When the study started the first question was thought to be a relatively straightforward one. It seemed obvious that the experience would differ considering the changes in the playing platform alone. The answer turned out to be more complex than a simple yes. Though most respondents consider the experience different, a section of the respondents did not. This dichotomy between respondents who find a difference and those who do not is interesting and demonstrates how different the player experience can be on an individual level. We must also consider the possibility that these respondents did not consider player experience as extensively as this thesis does. They might have thought of player experience only pertaining to what happens while playing, for example, and thus abstained from discussing some differences they might have discussed otherwise. However, as we cannot ascertain whether or not this was the case, the responsees represent the people who find the player experience of both versions identical. These respondents were considered in the sixth theme and could be used as proof that the digitization of chess has been a successful one.

With one side saying that a difference exists and the other disagreeing, we cannot undeniably claim that there exists a difference between the two versions. What we can ascertain, however, is that most respondents think there are differences. Some report that the differences are small and insignificant, others feel that the differences changer the player experience comprehensively. Either way, most respondents consider the experience to be different.

The second research question was about determining what kinds of differences there are in player experience of the two. Such a question is thus only relevant for those respondents who found one or more differences in the player experience. The question of what the differences are is inherently more difficult to answer. As explained by ISO (2020), the player experience contains the feelings, assumptions, preferences, understandings, and behaviour of respondents as well as their skill at chess, their previous

experiences and, importantly, the context in which they played chess. Crucially, even if they take place before, during, or after playing.

From the data we found that the differences reported by the respondents varied greatly, as a respondent might have focused on one part of the experience and another on something else. This variety seen in the responses was expected. As with any subjective topic such as experience, the answers are never going to be universal. The respondents are individuals, and although several of them feel similarly there are always going to be those who disagree.

Enough common ground was to be found in the responses that the differences reported could be divided into the different themes presented in the last chapter. It would be impossible to present all differences in player experience reported by the respondents due to the variety. Additionally, the differences are often interwoven to each other, so that to consider one requires discussion of another. Thus, we will discuss the second research question through the themes and the most important findings.

The first theme touched upon overt differences and showcased the variety of differences found in the playing platforms. Overt differences were not considered by many. This is, we believe, mainly due to three reasons. For one, it seems that environmental factors are hard to compare as it changes drastically and where play happens is irregular, especially with digital chess where the play might happen nearly everywhere. Secondly, the differences such as the physical board versus the digital screen are obvious and one that each respondent no doubt must have considered. It is so clear, however, that most do not discuss it directly, instead focusing on the other differences. And this leads us to the third point, how the themes are interconnected by nature. Various responses in this theme were connected to topics discussed in other themes. It is also possible that the overt differences are not discussed as much as might be considered too obvious to even mention. Also, it became clear that the importance of environment, a sub-theme in this theme, often relied on the context of play. For most respondents who wrote of the environment, it was only a relevant part of the experience if the context was meaningful enough. Meaning that most who wrote of the environment did so in the context of OTB chess played at tournaments, as if to say that the environment did not matter in digital chess or more casual cases of OTB chess. Some respondents, however, found the physicality of OTB chess crucial for the experience and many recognised the possibilities of the UI as positive parts of the digital player experience.

The second theme was focused on how the respondents thought the opponent, whether seen across the table or found behind screen, made the experience different. The theme was divided into two sub-themes of psychology and social aspects. Both themes turned out to be fruitful sources of information. In general, the respondents consider OTB chess to have a strong psychological element, as the opponent sits across the table affects the experience and the game in many ways. For example, it makes it is possible to infer the opponents plans by looking at them but simultaneously one must be careful not to betray their own thoughts to the opponent. Similarly, the respondents tend to find OTB chess to be a social game. The social can manifest itself in many ways, but the consensus is that merely having the opponent nearby is enough to alter the experience. For many respondents, the digital experience is often lacking due to the lesser psychological elements and diminished social aspects. Interestingly, many of those respondents who claimed digital chess was not social also reported that they had even blocked the option for communication. Though this might be because of the inappropriate messages some received online. Still, one must remember for digital chess to be social, both parties have to make an effort.

With the third theme we observed the various ways in which the act of playing itself might feel different. Whereas the second theme clearly showed the respondents preference for the OTB player experience, the third theme did not. The first two sub-themes, focused on visualisation and change in the play respectively, both presented divided views. Some preferred playing digital chess, others OTB chess. The most common view, however, was more dissimilar. Generally, the respondents felt that visualisation was easier depending on which version one was more accustomed to. The player experience was thus reliant more on the person's previous experiences rather than on the version of chess. Similarly, the playing itself was usually felt to change depending on the context of play rather than the version. These two sub-themes reinforce the idea, which was evident across the data, of chess being chess no matter the version. The last sub-theme touched upon time-controls and cheating, latter of which was only reported in relation to digital chess. The amount of cheating is impossible to determine from the data, as many do not discuss them and those who do tend to hyperbolise the issue. However, it is evident that having the expectation of cheating, whether real or not, affects the playing experience of digital chess negatively. The time-control discussion on the other hand yet again showed how the respondents prefer shorter games in digital chess and longer ones in OTB chess.

In the fourth theme four sub-themes were discussed, starting with focus. While some respondents reported focusing better when playing OTB chess and some when playing digitally, how the focus changes seems to be more related to context than the variant itself. Naturally, the focus would be better in a tournament setting than in a casual game played at home. Context was crucial for how much the weight the result of a match, the second sub-theme, has on the respondents as well. Even though the respondents generally felt that the importance of an OTB match was greater than the digital counterpart, context appears to affect the importance the most.

While atmosphere was not discussed by many, experience saw more comments. Regarding the OTB experience, many reported how OTB games are gratifying yet some added that it is also exhausting. This tiring side of OTB chess was one of the few negative ones found of it, which interestingly contrasts the idea, presented by some, of digital chess as something too easy to get lost into for hours on hours. Both atmosphere and experience were discussed little in relation to digital chess, which might be because the corresponding topics in the digital sphere are seen as lesser. It could also be because of the different context in which the versions are played in. Feelings, the final sub-theme of the fourth theme, included a wide array of differences. Some wrote of stress and annoyance, others of excitement. In general, however, respondents feel that OTB chess is more evocative and often more engrossing as well. Despite this, some respondents reported experience great surges of emotion in digital chess as well.

Fifth theme showed what sort of preferences and motivations the respondents have while playing and how they can affect the experience. The average respondent prefers OTB chess for a myriad of reasons rising from other themes. Yet interestingly, several of such respondents prefer digital chess in faster games. As such, the preference is quite flexible for many and depends on varying factors. Thus, the effect of preference on player experience is similarly flexible. In terms of motivations, the respondents reported numerous different ones for both chesses. The most predominant ones for being convenience, the use of it as entertainment, or one's desire to practice for digital chess and social aspects and competition for OTB chess. These most common ones explain the prevailing notes from other themes as well. The social aspects and the official competitions of OTB chess have been lauded as positive differences when compared to digital chess, and the convenience of the UI was an important topic in the first theme. Similarly, we can see the attitudes respondents have towards the two versions. Generally

speaking, the respondents view OTB more seriously and digital chess more casually, and the player experience of both reacts accordingly. This can be seen most clearly in the respondents who think of OTB chess as 'real chess'.

In addition to the two research questions, the fact that respondents found chess to stay as chess throughout the dataset should be discussed. When writing their responses most respondents do not even entertain the idea of chess being different on the two versions. The differences respondents write of are never directed to the game but to the surrounding factors. Consequently, it is not a surprise that several of the respondents went and explained the differences in their mental state and emotions between games over the board and in a digital space. Even the respondents who consider over the board chess to be 'real chess' and demote digital chess to a mere practice tool or a source of fun, the game itself stays intact. With the one exception of R29 who calls digital chess fake. The 204 remaining respondents do not go as far. For them, even if the experience of playing digital chess is different for most, the game is still the same.

This leads us to another appealing point. Whereas some respondents belittle and demean digital chess, no-one does so for OTB chess. It seems that the original version is held in high regard by everybody, including those who had not played it and those who preferred digital chess. Although the number of respondents who fit those two categories is low, one could still expect at least one scornful comment. Instead, the closest anyone gets is R68 who finds OTB chess too burdensome. It is entirely possible that the dataset simply lacked those who think less of over the board play. We deem it more likely, however, that all respondents hold OTB chess in high regard. Whether it is due to the perceived prestige coming from its history or not is difficult to say, but it seems clear from the data that OTB is thought of highly and it is even reflected in the player experience. Often indirectly, but one of the 'real chess' respondents, R196, states it more directly:

> For me, playing over the board is "real chess" and participating in the cultural continuum of hundreds of years, belonging to the social community of chess players - even though I am not a particularly social individual or a chess player. (R196)

To them playing over the board includes the participation in what over the board chess represents, the history, prestige, and culture of the past. Digital chess, albeit currently creating its mark in the history of chess, has not achieved the same status as of yet. No doubt the issue, perceived or real, of cheaters has made it harder for digital chess to reach

the same heights. Though not the only reason, this prestigious view of OTB chess is likely one reason for respondents to favor OTB chess.

We should shortly touch upon the topic of context as well, as it is a crucial part of player experience. Context is the only part of ISO's definition of experience that has not been included in the themes. This is the case as a particularly elusive topic and one we will shine a light on now. It was rarely discussed directly by the respondents and therefore it would be impossible to include. Additionally, determining the context often requires interpretation – the process of which we will discuss here to display its difficulties.

The context is to be deduced from the responses themselves and is thus considered more here. Even with interpretation, at it is times impossible to determine the context. In this section we present some examples and issues of interpretating the context in this study with the aim presenting how we approached them.

To begin with, consider R31 who gave one of the most descriptive accounts, an excerpt of which was seen in the last chapter already. They talk of how the experience differs in their view as well:

> The games themselves are much more profound for me over the board than what I experience playing digitally, as a first example, the full commitment of both parties to the game over the board, time has been reserved only for playing, distractions have been removed, and one can really commit to thinking as long as one needs and the time control of the game in question allows. (R31)

They go and add how the players need slightly different skills in the two versions, referring to visualization and how one cannot rely on helpful systems when playing OTB chess and has to make sure that their and their opponent's moves are legal. The quote is great and at first glance it seems perfect for this study.

While it is that, it is slightly deceitful as well. If we look at the quote more in depth, we notice the issue of context. All examples given by them in the quote are not inherently part of OTB chess. Whether the players are committed, time has been set aside, the distractions are removed, and whether the players will have time to think could very well be true for digital chess as well. Digital chess does not have to mean casual play and how much time you have for playing is entirely up to the player. Even if one cannot always mitigate distractions for digital chess, it is still often possible. R31 does not directly report the context in which they play chess. Luckily, the context of R31 quote is fairly

straightforward to surmise. The picture they paint is of chess of more serious nature – most likely at a competition or chess club. Through their responses we can also understand their attitude towards the two versions and that they think of OTB chess in higher regard. Attitude, as well as culture, is of course an important aspect of the experience and provides important insight into the research question. As we have discussed and clearly see in this example, these external matters are important.

However, to properly discuss them one must unearth them. Some of the respondents were even clearer, as we can see from this quote:

> Playing over the board is almost always more exciting. This is not so much due to the version, but to the fact that more official matches are played on the board. In such a case, one can also focus more on chess. (R60)

This is a more direct example as they specify that they play official matches in OTB chess. The sentiment is common in the data, yet most respondents do not make the point so clearly and many do not seem to acknowledge it like R60 does in this quote. Another straightforward example comes from R155. They claim that the social aspects are highlighted when playing OTB chess and mention that OTB chess involves meeting old friends in amiable circumstances. For them the context in which OTB chess is played inherently includes old friends. Naturally they prefer the player experience of OTB chess as well, as the context and experience for them includes friendly faces.

However, with many responses it is effectively impossible to be sure of the context. R78 is a great example. They find digital chess more casual compared to the excitement of OTB chess. They write that, in terms of the level of tension, the two chesses are like from a different planet. Though never specifying how and why they play the two, R78 once mentions that they have a title in chess. Titles, of course, being the prestigious ranks obtained by performing well in official tournaments. It could be entirely unrelated, of course, but now that we know R78 enjoys playing tournaments should we assume they think of such when discussing OTB games? It is impossible to say sure, but unlike some respondents R78 leaves that one hint. From that one word alone it seems likely that they are talking of OTB chess in the context of official competitions and of digital chess in more everyday context.

Each respondent has been considered like so, with some betraying the context they write of more readily than others. To better our interpretations we would have needed to ask

the respondents to specify which context they speak of in the survey. As that was not done, we have interpreted the responses to the best of our ability.

5.1. Limitations

In the spirit of transparency, the limitations of this study faced will be briefly discussed alongside the critique received from some of the respondents. For one, as this is a qualitative study about subjective experiences, it relies in many parts on the researchers' interpretations. As discussed above, this leaves room for potential misrepresentation. One must also remember that responses to any surveys are bound to be unreliable to a point, as people fail to give accurate answers (Booth, 2021).

Additionally, the question wording in the survey could have been considered more carefully. Some of the respondents faced difficulty trying to understand the intention behind the questions and failed thus to respond. Similarly, the definition of player experience should have been described to the respondents. As that was not done, it is entirely possible some respondents did not disclose everything they otherwise would have. These problems are, luckily, reduced due to the large number of respondents and the fact that most of them provided fantastic data.

The respondents who gave critique, which we are thankful for, placed it well. R82, for example, mentioned how interviews would have been a better choice of data collection method. As discussed in the Methods and Data chapter, while interviews would have allowed for more in-depth questioning of a handful of people, survey was chosen as it allowed us to analyse a much larger group. R157 found the third open-ended question poorly worded and R69 felt all questions were odd and that there should have been more of them. Again, the survey could have been designed better to be easier to understand.

It must be said that some respondents, in turn, left positive comments, which we appreciated, wishing the researcher luck or simply expressing gratitude for studying their hobby.

5.2. Future Research

The collected dataset would allow for further studies. Also The quantitative data collected could be used to explore if differences can be found between age groups. The data has a

small indication of a generational shift happening, with some, generally younger, respondents reporting preference of better play in digital chess. Further studies could be conducted on whether this is a mere coincide or whether more and more chess players are starting to prefer digital chess. It would also be interesting to study whether the player experience of other digitized tabletop games corresponds to the findings of this paper.

As discussed in the introduction, this thesis could prove helpful for further research into digitized tabletop games. The findings provide a set of themes that could be reapplied on other similar studies. We found that chess has been successfully digitized in terms of player experience, and this knowledge could be useful for other studies related to digitized board games.

6 CONCLUSIONS

The history of chess goes back centuries, and it has reached the height of its popularity in recent years. Millions of people around the world play it in various ways and consume chess media such as videos and live streams. Many chess players approach the games seriously, as can be seen in this quote from R112:

> Chess feeds the imagination and boosts self-esteem. For mistakes chess chastises, but through them we learn the most. We grow as people. We learn to endure the worst disappointments and revel in visual beauty. Chess is close to self-defense sports. It is a way of life, at its best, but is at its most dangerous when it turns into a religion like dogma that eats one from the inside and dominates everyday life. Still, in my opinion, the enigma of chess moves enthusiasts forward. And I want to be a part of this intriguing riddle. R112

It would be inaccurate to claim that several respondents approached the questions with the same viewpoint as R112 does in this quote. Despite it being one of a kind within the data, the quote represents well the earnest attitude several respondents share, whether they prefer one version of chess over the other or not. As the number of chess players increases, so should the understanding of their player experience on the two most popular variants of chess, over the board and digital chess.

Therefore, this thesis embarked to fill the apparent research gap on the issue by answering two research questions. The first was phrased as: Is the player experience of over the board chess different from digital chess?

And the second, which thesis mostly focused on, was as follows: What are the differences in the player experience of over the board chess and digital chess?

We aimed to garner understanding of the player experience through a sample population of chess players. An online survey was conducted to collect data, and the survey reached 205 chess players from Finland. The collected data was then analysed with thematic analysis in the thesis. A definite answer could not be reached for the first question, as some respondents felt that the experience is the same in both and others, the majority, felt that a difference exists.

The second research question, then, was for those who found a difference or differences. A great variety of differences was reported, as individual respondents concentrated on different topics, agreed on some and disagreed on others. While their differences created a rich set of data, it also meant that the second research question cannot be answered

briefly. The seldomly discussed physical differences were the most important pieces of the experience for some, as were the various psychological and social aspects that the respondents found in OTB chess. As individuals, the respondents had varying views.

However, customarily the respondents thought OTB chess to be more evocative and engrossing, but at the same time some reported great amounts of emotion while playing digital chess. Consequently, respondents often found the OTB player experience better, as the digital counterpart was found to be lacking in, for example, social and psychological aspects. Yet still both versions are preferred in their own spaces. For most, OTB chess is for competing, socialising, or both. Digital chess for practice or fun, though respondents also applaud the accessibility of digital chess.

All in all, the differences can be divided into five themes, which in this thesis were named Overt Differences, the Other Players, Differences in Play, Affect, and Respondent Motivations and Preferences.

In conclusion, we can state that for most players the player experience of over the board chess is different to that of digital chess. Additionally, we can affirm that the differences found between the player experience of the two vary greatly but can be categorised into five themes. We hope that the findings of this study will be useful in future research on digitized games, chess, or both.

REFERENCES

Bernhaupt, R. (Eds.) (2010). *Evaluating user experience in games concepts and methods* (1st ed.). Springer. https://doi.org/10.1007/978-1-84882-963-3

Birk, M., Friehs, M., & Mandryk, R. (2017). Age-Based Preferences and Player Experience: A Crowdsourced Cross-sectional Study. *CHI PLAY 2017 - Proceedings of the Annual Symposium on Computer-Human Interaction in Play*, 157–170. https://doi.org/10.1145/3116595.3116608

Booth, P. (2021). *Board games as media*. Bloomsbury Academic & Professional.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101. DOI: 10.1191/1478088706qp063oa

Braun, V., & Clarke, V. (2017). Thematic Analysis. *The Journal of Positive Psychology*, *12*(3), 297-298. DOI: 10.1080/17439760.2016.1262613

Braun, V., & Clarke, V., Boulton, E., Davey, L., & McEvoy, C. (2021). The online survey as a qualitative research tool. *International Journal of Social Research Methodology, 24*(6), 641-654. DOI: 10.1080/13645579.2020.1805550

Braun, V., & Clarke. (2022). *Thematic Analysis: a Practical Guide*. SAGE.

Chess.com. (2021). *Rapid Leaderboard*. Retrieved on November 10, 2021, from https://www.chess.com/leaderboard/live/rapid

Clarke, V., & Braun, V. (2013). Teaching thematic analysis: Overcoming challenges and developing strategies for effective learning. *The psychologist, 26*(2).

Costello, B. M. (2018). The Rhythm of Game Interactions: Player Experience and Rhythm in Minecraft and Don't Starve. *Games and Culture, 13*(8), 807–824. https://doi.org/10.1177/1555412016646668

Dailey, D., Hair, A., & Watkins, M. (2014). Move similarity analysis in chess programs. *Entertainment Computing, 5*(3), 159–171. https://doi.org/10.1016/j.entcom.2013.10.00

Danilovic, S., & de Voogt, A. (2021). Making Sense of Abstract Board Games: Toward a Cross-Ludic Theory. *Games and Culture, 16*(5), 499–518. https://doi.org/10.1177/1555412020914722

Eales, R. (1985). *Chess: The History of a Game*. B.T Batsford Ltd, London.

FIDE. (2021, January 4). *FIDE approves Online Chess Regulations*. Retrieved on November 10, 2021, from https://fide.com/news/889

FIDE. (n.d.). *FIDE Handbook*. Retrieved December 7, 2021, from https://handbook.fide.com/

Flick, U. (Ed.). (2014). *The SAGE handbook of qualitative data analysis*. SAGE.

Fowler, F. J. (2009). *Survey research methods* (4th ed.). SAGE Publications, Inc. https://dx.doi.org/10.4135/9781452230184

Franzke, A. S., Bechmann, A., Zimmer, M., & Ess, C. and the Association of Internet Researchers (2020). *Internet Research: Ethical Guidelines 3.0.* https://aoir.org/reports/ethics3.pdf

Hall, M. A. (2022). Games of Character: The Role of Board, Dice & Card Games in Popular Cinema. *Board Game Studies Journal, 16*(2), 17–46. https://doi.org/10.2478/bgs-2022-0018

Horberg, W., Frank. S., & Scott, A. (2020). *The Queen's Gambit* [TV series]. Netflix.

International Organization for Standardization. (2020). Ergonomics of human-system interaction — Part 110: Interaction principles (ISO 9241-110:2020). Retrieved from https://www.iso.org/obp/ui/#iso:std:iso:9241:-110:ed-2:v1:en

Kuckartz, U. (2014). *Qualitative text analysis: A Guide to Methods, Practice & Using Software*. SAGE Publications Ltd. https://dx.doi.org/10.4135/9781446288719

Lichess. (2020, December 31). *Lichess End of Year Update 2020*. https://lichess.org/blog/X-2TABUAANCqhnH5/lichess-end-of-year-update-2020

Lichess. (2021). *Weekly rapid rating distribution*. Retrieved on November 10, 2021, from https://lichess.org/stat/rating/distribution/rapid

Markov, G. (2022). Three Large Chess Variants from India and Germany: a note on their rules. *Board Game Studies Journal, 16*(2), 1–16. https://doi.org/10.2478/bgs-2022-0017

Martoncik, M., & Loksa, J. (2016). Do World of Warcraft (MMORPG) players experience less loneliness and social anxiety in online world (virtual environment) than in real world (offline)? *Computers in Human Behavior*, 56, 127–134. https://doi.org/10.1016/j.chb.2015.11.035

Mozelius, P., Humble, N., Sällvin, L., Öberg, L., Pechuel, R., & Fernández-Manjón, B. (2022). *How to get the girls Gaming: A Literature Study on Inclusive Design*. Academic Conferences International Limited.

Murray, H. J. R. (1913). *A History Of Chess*. Oxford University Press.

Placek, P. C. (2023). The impossibility of a perfect tournament. *Entertainment Computing*, 45, 100540. https://doi.org/10.1016/j.entcom.2022.100540

Sue, V. M., & Ritter, L. A. (2012). *Conducting online surveys* (2nd ed.). SAGE Publications, Inc. https://dx.doi.org/10.4135/9781506335186

Sweetser, P., & Wyeth, P. (2005). GameFlow: a model for evaluating player enjoyment in games. *Computers in Entertainment*, *3*(3), 3–3. https://doi.org/10.1145/1077246.1077253

Randall, N. (2011). The boardgame online. In Crawford, G. et al. (Eds.), *Online gaming in context: The social and cultural significance of online games*. Taylor & Francis Group.

Riis, S. (2014). What makes a chess program original? *Revisiting the Rybka case. Entertainment Computing, 5*(3), 189–204. https://doi.org/10.1016/j.entcom.2014.04.004

Rogerson, M. J., Gibbs, M., & Smith, W. (2015). Digitising boardgames: Issues and tensions. *DiGRA 2015 - Proceedings of the 2015 DiGRA International Conference: Diversity of Play*.

Sundaramadhavan, M. T., De la Cruz, Luis Blasco, Barbier, A., Whatley, S., & Megrahi, M. (2021). *The Joy of Rediscovering Chess: The Perspectives of Dialogic Thinking in Chess*. Academic Conferences International Limited. https://doi.org/10.34190/GBL.21.061

Wiese, H. (2016). Four-king chess with dice is neither unrealistic nor messed up. *Board Game Studies Journal, 10*(1), 33–59. https://doi.org/10.1515/bgs-2016-0003

APPENDIX A. SURVEY

Shakin pelikokemus laudalla ja digitaalisesti

Shakki on yksi maailman vanhimmista peleistä, joka on säilynyt muuttumattomana vuosisatoja. Siirtyminen pelaamaan digitaalisesti vaikuttaa ulkoisesti suurelta muutokselta, mutta onko se?

Olen pelitutkimuksen maisteriopiskelija Tampereen yliopistossa ja teen Pro gradu - tutkielmaani shakista. Pohdin tutkielmassani sitä, tuoko shakin pelaaminen digitaalisesti erilaisen pelikokemuksen kuin laudalla pelatessa.

Olisi hienoa, jos ehtisit vastaamaan tähän sähköiseen kyselyyn. Kyselyyn vastataan nimettömänä eikä vastaajan IP-osoite tallennu. Vastaukset käsitellään luottamuksellisesti sekä anonyymisti ja vain minä sekä ohjaajani tulevat käsittelemään vastauksia. Aineisto hävitetään, kun sitä ei enää tarvita tutkimuskäyttöön. Kyselyyn voi vastata 18.04. saakka.

Vastaan mielelläni kysymyksiin kyselystä tai gradustani. Minut tavoittaa sähköpostiosoitteesta

Kiitoksin, Benjamin Puha

Osa 1

1. Ikä
    a. Alle 20v
    b. 20-29v
    c. 30-39v
    d. 40-49v
    e. 50-59v
    f. 60-69v
    g. 70v tai vanhempi
2. Sukupuoli
    a. Mies
    b. Nainen
    c. Muu
    d. En halua kertoa

3. Miten pitkään olet pelannut shakkia?

    a. Alle vuoden

    b. 1-4 vuotta

    c. 5-9 vuotta

    d. 10-19 vuotta

    e. 20-29 vuotta

    f. 30 vuotta tai enemmän

4. Oletko pelannut shakkia

    a. Sekä laudalla että digitaalisesti

    b. Vain laudalla

    c. Vain digitaalisesti

Osa 2

5. Miten usein olet pelannut shakkia laudalla viimeisen puolen vuoden aikana?

    a. Päivittäin

    b. Muutaman kerran viikossa

    c. Kerran viikossa

    d. Muutaman kerran kuukaudessa

    e. Harvemmin kuin kerran kuukaudessa

    f. En ollenkaan

6. Onko koronapandemia vaikuttanut siihen, miten usein pelaat shakkia laudalla?

    a. Kyllä, olen pelannut vähemmän.

    b. Kyllä, olen pelannut enemmän.

    c. Ei.

7. Pelinopeus pelatessasi shakkia laudalla?

(voit valita useamman)

    a. Aikaa siirtoihin enintään 10 minuuttia

    b. Aikaa siirtoihin 10 minuutista 60 minuuttiin

    c. Aikaa siirtoihin 60+ minuuttia

    d. Muu

8. Miten usein olet pelannut shakkia digitaalisesti viimeisen puolen vuoden aikana?

    a. Päivittäin

    b. Muutaman kerran viikossa

c. Kerran viikossa

d. Muutaman kerran kuukaudessa

e. Harvemmin kuin kerran kuukaudessa

f. En ollenkaan

9. Onko koronapandemia vaikuttanut siihen, miten usein pelaat shakkia digitaalisesti?

a. Kyllä, olen pelannut vähemmän.

b. Kyllä, olen pelannut enemmän.

c. Ei.

10. Pelinopeus pelatessasi shakkia digitaalisesti?

(voit valita useamman)

a. Aikaa siirtoihin enintään 10 minuuttia

b. Aikaa siirtoihin 10 minuutista 60 minuuttiin

c. Aikaa siirtoihin 60+ minuuttia

d. Muu

11. Miten pelaat digishakkia?

(voit valita useamman)

a. Tietokoneella

b. Puhelimella

c. Tabletilla

d. Muu

12. Pelaatko digitaalista shakkia verkossa?

(voit valita useamman)

a. Tietokonetta vastaan

b. Tuttuja vastaan

c. Tuntemattomia vastaan

Osa 3

13. Millaista shakin pelaaminen laudalla sinulle on?

Kuvaile edellistä pelikokemustasi. Voit kertoa siitä, miten valmistauduit, millaisia odotuksia pelille oli, millaisia tuntemuksia pelin aikana heräsi, mikä rooli on fyysisillä pelivälineillä, millainen oli sosiaalinen tilanne toisen pelaajan kanssa, ja niin edelleen. Käsiteltäviä aiheita ei ole rajattu.

14. Millaista shakin pelaaminen digitaalisesti sinulle on?

Kuvaile edellistä pelikokemustasi. Voit kertoa siitä, miten valmistauduit, millaisia odotuksia pelille oli, millaisia tuntemuksia pelin aikana heräsi, mikä rooli on digitaalisella käyttöliittymällä, millainen oli sosiaalinen tilanne toisen pelaajan kanssa, ja niin edelleen. Käsiteltäviä aiheita ei ole rajattu.

15. Millä tavoin pelikokemus mielestäsi vertautuu?

Voit kertoa esimerkiksi pelikokemuksien samanlaisuuksista tai eroavaisuuksista, mutta käsiteltäviä aiheita ei ole rajoitettu.

16. Mikä motivoi sinua pelaamaan sekä laudalla että digitaalisesti? / Mikä motivoi sinua pelaamaan vain laudalla? / Mikä motivoi sinua pelaamaan vain digitaalisesti?
17. Haluatko kertoa jotain muuta kyselyyn liittyvää?

Vastauksesi on lähetetty - Kiitos kyselyyn vastaamisesta!

APPENDIX B. TRANSLATED SURVEY

The player experience of chess over the board and digitally

Chess is one of the world's oldest games, which has stayed unchanged for centuries. The shift to digital play seems like a large change on the outside, but is it?

I am a master's student of Game Studies in Tampere university, and I am doing my master's thesis of chess. In it, I ponder whether playing chess digitally brings a different player experience than playing chess on the board.

It would be great if you had the time to answer this online survey. The survey is filled anonymously, and the IP-address of the respondent is not recorded. The responses are managed confidentially and anonymously and only me, and my supervisor will handle the responses. The collected material will be disposed once it is not needed in the study. The survey can be filled until 18.04.

I will gladly reply to any questions you might have of the survey or my thesis. You may contact me with email at

With thanks,

Benjamin Puha

Section 1

1. Age
    a. Under 20 years
    b. 20-29 years
    c. 30-39 years
    d. 40-49 years
    e. 50-59 years
    f. 60-69 years
    g. 70 or older
2. Gender
    a. Male
    b. Female
    c. Other

    d. Prefer not to answer

3. How long have you played chess?

    a. Under a year

    b. 1-4 years

    c. 5-9 years

    d. 10-19 years

    e. 20-29 years

    f. 30 years or more

4. Have you played chess

    a. Both over the board and digitally

    b. Only over the board

    c. Only digitally

Section 2

5. How often have you played chess over the board during the last six months?

    a. Daily

    b. A few times a week

    c. Once a week

    d. A few times a month

    e. Less than once a month

    f. Not at all

6. Has the COVID-19 pandemic affected how often you play chess over the board?

    a. Yes, I have played less.

    b. Yes, I have played more.

    c. No.

7. Time control when you play chess over the board?

(you may choose more than one)

    a. up to10 minutes for the moves

    b. 10 to 60 minutes for the moves

    c. +60 minutes for the moves

    d. Other

8. How often have you played chess digitally during the last six months?

    a. Daily

b. A few times a week

c. Once a week

d. A few times a month

e. Less than once a month

f. Not at all

9. Has the COVID-19 pandemic affected how often you play chess digitally?

a. Yes, I have played less.

b. Yes, I have played more.

c. No.

10. Time control when you play chess digitally?

(you may choose more than one)

a. up to 10 minutes for the moves

b. 10 to 60 minutes for the moves

c. +60 minutes for the moves

d. Other

11. How do you play digital chess?

(you may choose more than one)

a. On a computer

b. On a phone

c. On a tablet

d. Other

12. Do you play digital chess online?

(you may choose more than one)

a. Against a computer

b. Against someone I know

c. Against someone I don't know

Section 3

13. How does playing chess over the board feel to you?

Describe your previous player experience. You may recount how you prepared, what kind of expectations you had for the game, what kind of feelings the game roused, whether the physical pieces play a role, how was the social situation with the other player, and so forth. The possible topics are not restricted.

14. How does playing chess digitally feel to you?

Describe your previous player experience. You may recount how you prepared, what kind of expectations you had for the game, what kind of feelings the game roused, whether the digital interface played a role, how was the social situation with the other player, and so forth. The possible topics are not restricted.

15. How do you think the player experience compares?

You may tell of the similarities or differences between the two, but the topics are not restricted.

16. What motivates you to play chess both over the board and digitally? / What motivates you to play chess solely over the board? / What motivates you to play chess solely digitally?
17. Is there anything else related to the topic you'd like to recount or note?

Your response has been sent – thank you for filling out the survey!

APPENDIX C.

Quantitative data from sections one and two

1. Ikä / Age

	Määrä – Count
Alle 20v – Under 20 years	19
20-29v – 20-29 years	32
30-39v – 30-39 years	26
40-49v – 40-49 years	25
50-59v – 50-59 years	47
60-69v – 60-69 years	35
70v tai vanhempi – 70 or older	22
Yhteensä – In total:	205

2. Sukupuoli / Gender

	Määrä – Count
Mies – Male	193
Nainen – Female	11
Muu – Other	0
En halua kertoa – Prefer not to answer	1
Yhteensä – In total:	205

3. Miten pitkään olet pelannut shakkia? How long have you played chess?

	Määrä – Count
Alle vuoden – Under a year	1
1-4 vuotta – 1-4 years	24
5-9 vuotta – 5-9 years	20
10-19 vuotta – 10-19 years	29

	Määrä – Count
20-29 vuotta – 20-29 years	21
30 vuotta tai enemmän – 30 years or more	110
Yhteensä – In total:	205

4. Oletko pelannut shakkia / Have you played chess

	Määrä – Count
Sekä laudalla että digitaalisesti – Both over the board and digitally	200
Vain laudalla – Only over the board	1
Vain digitaalisesti – Only digitally	4
Yhteensä – In total:	205

5. Miten usein olet pelannut shakkia laudalla viimeisen puolen vuoden aikana? / How often have you played chess over the board during the last six months?

	Määrä – Count
Päivittäin – Daily	13
Muutaman kerran viikossa – A few times a week	25
Kerran viikossa – Once a week	26
Muutaman kerran kuukaudessa – A few times a month	52
Harvemmin kuin kerran kuukaudessa – Less than once a month	68
En ollenkaan – Not at all	17
Yhteensä – In total:	201

6. Onko koronapandemia vaikuttanut siihen, miten usein pelaat shakkia laudalla? – Has the COVID-19 pandemic affected how often you play chess over the board?

	Määrä – Count
Kyllä, olen pelannut vähemmän. – Yes, I have played less.	149
Kyllä, olen pelannut enemmän. – Yes, I have played more.	6
Ei. – No.	46
Yhteensä – In total:	201

7. Pelinopeus pelatessasi shakkia laudalla? –Time control when you play chess over the board?

(voit valita useamman) (you may choose more than one)

	Määrä – Count
Aikaa siirtoihin enintään 10 minuuttia – up to 10 minutes for the moves	122
Aikaa siirtoihin 10 minuutista 60 minuuttiin – 10 to 60 minutes for the moves	98
Aikaa siirtoihin 60+ minuuttia – +60 minutes for the moves	108
Muu - Other	30
Yhteensä – In total:	357

8. Miten usein olet pelannut shakkia digitaalisesti viimeisen puolen vuoden aikana? – How often have you played chess digitally during the last six months?

	Määrä – Count
Päivittäin – Daily	97
Muutaman kerran viikossa – A few times a week	70
Kerran viikossa – Once a week	8
Muutaman kerran kuukaudessa – A few times a month	12
Harvemmin kuin kerran kuukaudessa – Less than once a month	13
En ollenkaan – Not at all	4
Yhteensä – In total:	204

9. Onko koronapandemia vaikuttanut siihen, miten usein pelaat shakkia digitaalisesti? Has the COVID-19 pandemic affected how often you play chess digitally?

	Määrä – Count
Kyllä, olen pelannut vähemmän. – Yes, I have played less.	6
Kyllä, olen pelannut enemmän. – Yes, I have played more.	110
Ei. – No.	88
Yhteensä – In total:	204

10. Pelinopeus pelatessasi shakkia digitaalisesti? – Time control when you play chess digitally?

(voit valita useamman) (you may choose more than one)

	Määrä – Count
Aikaa siirtoihin enintään 10 minuuttia – up to 10 minutes for the moves	157
Aikaa siirtoihin 10 minuutista 60 minuuttiin – 10 to 60 minutes for the moves	67
Aikaa siirtoihin 60+ minuuttia – +60 minutes for the moves	11
Muu - Other	31
Yhteensä – In total:	266

11. Miten pelaat digishakkia? – How do you play digital chess?

(voit valita useamman) (you may choose more than one)

	Määrä - Count
Tietokoneella – On a computer	168
Puhelimella – On a phone	111
Tabletilla – On a tablet	38
Muu - Other	4
Yhteensä – In total:	321

12. Pelaatko digitaalista shakkia verkossa? – Do you play digital chess online?

(voit valita useamman) (you may choose more than one)

	Määrä - Count
Tietokonetta vastaan – Against the computer	41
Tuttuja vastaan – Against someone I know	76
Tuntemattomia vastaan – Against someone I don't know	188
Yhteensä – In total:	305

APPENDIX D.

Untranslated survey quotes

"Pikapelejä pelaan mieluummin netissä, koska siellä harvemmin tulee ns. tulkinnanvaraisia asemia: nappulat eivät kaatuile, ei voi tehdä laittomia siirtoja ym., jotka lähipelissä usein häiritsevät. Kätevä kun voi pelata missä tahansa (lähinnä kotona) ja milloin vaan - aina löytyy vastustajia." R20

"Mielestäni pelikokemuksia ei voi verrata. Laudan ääressä pelaaminen on ihan eri juttu, kuin digitaalinen pelaaminen." R22

"digishakki on feikkishakkia, ei ole oikeaa shakkia." R29

"Pelit itsessään ovat paljon syvempiä laudan päällä itselle kuin mitä koen pelatessa digitaalisesti, ensimmäiseksi esimerkiksi molempien osapuolien täysi sitoutuminen peliin laudan päällä, aika on varattu vain pelaamiseen, häiriötekijät on poistettu, ja saa oikeasti syventyä miettimään niin kauan kuin tarvitsee ja kyseisen pelin aika-raja sallii." R31

"Tunteellisella tasolla shakki voi olla hyvinkin brutaalia, joka vielä etenkin korostuu laudan päällä pelatessa, kun sitoutuminen peliin ja sen tuloksen merkitys ovat korkeammalla kuin mitä mahdollisesti netissä pelattaessa. Shakissa ei ole tuuria, vaan jokainen virhe on sinun itsesi aiheuttama. Häviäminen voi tuntua yhtä hyvältä kuin voittaminen, jos itse on kokenut pelaavansa oman tasoista tai vielä parempaa shakkia. Surullista kyllä shakin laatuun saattaa usein vaikuttaa oma jaksaminen ja mielentila, joka saattaa johtaa siihen että shakkipeli pilaantuu täysin jos on itse alkanut epäröimään tai ahdistumaan kesken pelin. Joskus pelien jälkeen koen suurtakin väsymystä, turhautumista ja suorastaan masennusta, mutta jostain syystä jokainen meistä raahautuu lopulta takaisin laudan päälle. Me kaikki haetaan addikteina sitä tunnetta, kun kaikki loksahtaa kohdalleen, ja itse pelaa niin hyvää shakkia kuin pystyy, oli loppu tulos sitten häviö tai voitto." R31

"Digitaalisella laudalla pelaaminen herättää helpommin ärtymyksen tai innostuksen tunteita sillä näitä ei tarvitse piilottaa. Fyysisen laudan pelien aikana itsehillintä ja etiketti on tärkeää." R49

"Laudalla pelaamiseen liittyy lähes poikkeuksetta enemmän jännitystä. Tämä ei johdu niinkään pelimuodosta, vaan siitä, että laudalla pelataan virallisempia otteluita. Tällöin pystyy myöskin keskittymään enemmän shakille." R60

"Laudalla pelatessa täytyy muistaa, että vastustajan eleet saattavat vaikuttaa päätöksiin. Tämä täytyy pitää mielessä, jotta vastustaja ei pääse hämäämään ele kielellä" R66

"Laudalla pelataan ihmistä vastaan. Verkossa pelataan shakkia. Samanlaisuutta on paljon, mutta verkossa ei voi päätellä vastustajan käyttäytymisestä mitään vinkkejä pelin kulusta, eikä toisaalta anna itsekaan samanlaisia signaaleja. Tämä on siis sekä hyvä että huono asia (riippuen tilanteesta)." R109

"Shakki ruokkii mielikuvitusta ja hivelee itsetuntoa. Shakki rankaisee virheistä, mutta virheiden kautta opimme eniten. Kasvamme ihmisinä. Opimme kestämään pahimmat pettymykset ja iloitsemme visuaalisesta kauneudesta. Shakki on lähellä itsepuolustuslajeja. Se on elämäntapa, parhaimmillaan, mutta vaarallisimmillaan muuttuessaan uskonnon kaltaiseksi dogmaksi joka syö sisältä ja hallitsee arkea. Silti, shakin arvoitus vie mielestäni harrastajia eteenpäin. Ja haluan olla osa tätä kiehtovaa arvoitusta." R112

"Peli on täysin sama netissä kuin laudalla patsi netissä katot 2d lautaa ja "oikeassa elämässä" 3d lautaa. Jotkut hahmoittavat ja laskevat paremmin 2d laudalla, toiset 3d laudalla. Riippuu varmaankin paljon mihin on tottunut." R124

"Laudalla pelaaminen tuo shakkiin sosiaalisen ulottuvuuden mikä tekee kokemuksesta jo sen suhteen erilaista. Pidän itse tuosta sosiaalisesta dimensiosta shakissa." R153

"Nappuloiden korjaaminen, kellon painaminen, keikkuuko tuoli, onko pelisali liian kylmä/kuuma, ärsyttääkö vastustaja, onko lauta tehty puusta, ja jos pelaa joukkueessa niin miten joukkueella menee. Nämä ovat muun muassa pieniä asioita, jotka vaihtelevat jatkuvasti kontroloituun ympäristöön, eli kotona digitaalisen shakin pelaamiseen, verrattuna." R159

"Laudalla pelaamisessa on mukana sosiaalista ja psykologista ulottuvuutta, joita netistä puuttuu – enkä niitä edes juuri kaipaa." R173

"En näe juurikaan yhteistä laudalla ja digipelaamiseen. Ehkä se johtuu siitä, että laudalla pelattavat pelit ovat pitkälti kilpapelejä." R193

"Laudalla pelaaminen on minulle "oikeaa shakkia" ja osallistumista satojen vuosien kulttuuriseen jatkumoon, kuulumista shakinpelaajien sosiaaliseen yhteisöön - vaikka en erityisen sosiaalinen yksilö tai shakinpelaaja olekaan." R196

"Erona liveshakkiin nettishakki on huolettomampaa. Uuden pelin saa aina heti, livepelissä kaikki vaikuttaa olevan lopullisempaa. Vaikka liveturnauksia ja pelejä tuleekin lisää, niin siinä joutuu aina odottamaan hieman kauemmin. Ehkä tämä on osasyy sille että ainakin omalta osaltani livepelit ovat olleet keskimäärin laadukkaampia kuin nettipelit." R204