HOBBYIST BOARD GAME DESIGN PRACTICES: HOW DO BOARD GAME DESIGNERS CRAFT THEIR RULES MANUALS AND SOLICIT USER FEEDBACK ON PROTOTYPE GAMES?

by

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For all of my family, both inherited and chosen,
who have always offered their love, guidance, and encouragement when I needed it most.
I did it, y'all.

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ABSTRACT

This study explores the processes, considerations, and pitfalls of manual drafting and playtesting for board game designers. The board game manual is perhaps one of the most important items in a board game box, yet it is often neglected in game design books and other media. Through interviews with twelve board game designers and editors, this study compiles the best practices and classic pitfalls that designers encounter while writing these high-stakes documents. Observations in this study are geared toward the technical writing community, who can stand to benefit from learning more about the playful nature of game documentation and the affective data gathering processes that these designers undertake as they test their games and rulebooks. In an effort to make this data more accessible to board game designers, a Manual on Writing Manuals is included as an appendix to this study.

CHAPTER 1: INTRODUCTION

The Golden Age of Board Games

We are currently experiencing a golden age in board game production and design. A steadily growing interest in board games in the United States started more than two decades ago with the wildly popular German board game *Settlers of Catan* (1995), which introduced millions of Americans to the non-aggressively competitive style of European board games (or Eurogames, as they are more commonly called). Board game production in the last twenty years has seen steady increases, with a small boom in the number of games produced in the last few years as crowdfunding sites like *Kickstarter* allow independent designers a chance to bring their game to market without needing to go through established publishers. This new funding paradigm allows designers to appeal to potential customers directly, without having to secure funding through traditional publishers and the infrastructure they provide. This means more hobby game designers must find their own networks of support for producing professional quality player-facing board game materials (components, player aides, instruction manuals, etc.).

This presents a major hurdle for neophyte game designers to overcome: how do they learn to write engaging, informative, and usable instruction documents for a general audience? Moreover, what are their methods for collecting data from their play-testers during the prototyping stage? Skilled technical writing is an important skill for hobby game designers in particular to hone, as players rely upon instruction manuals to communicate how a game is played. Unlike video games, which has a game engine maintaining rules "under the hood" and away from the player's gaze, the "engine" for board games is contained in the rules document and must be properly executed by the player. Rules written with excessive or intricate detail become difficult for players to keep in their heads as they play; conversely, rules that are too vague create confusing situations during gameplay that can result in arguments among players and disruptions in play. A well-crafted manual must carefully straddle this line to produce a usable game. In short, good technical writing is essential to making board games work.

While video game scholarship is starting to carve out a respectable space within academia, little has been written about board game design and even less so about common practices, conventions, and issues surrounding board game manual and visual design of components. As a technical writing problem, board game manuals are an interesting subject,

as they are one of the few pieces of technical writing with which one chooses to interact for fun. While most books aimed at aspiring game designers focus on mechanics, theme, and presentation, very little attention is paid to the writing and user-testing of a game manual that is easy to understand for a wide variety of users. The expertise and best practices of the technical writing community stands to offer board game designers' insight into how best to craft their manuals for optimal readability and ease of use. In turn, board game design is an interesting space for technical communication scholars to explore, as this distributed, often hobbyist production community consistently produces visually-appealing and clear documentation for their users while often leveraging the enthusiasm of the player community to crowdsource their editing and revision process.

This project stems from my own personal passion for board games and its connection to my own undergraduate and graduate experience. Before leaving for college, one of my high school science teachers introduced me to some of the board games he played with the other teachers at my school. After my first games of *Munchkin* and *Settlers of Catan* with him and a few friends over lunch, I was absolutely hooked. In my freshman year of college, I joined the university board game club, where my passion for analog games grew into an obsession over my four years of undergraduate study. When I started my graduate education and had the opportunity to teach for the first time, a colleague who knew about my obsessive hobby suggested having my students create board games as a final project that could tie together different types of writing and revising strategies that we practiced over the course of the semester. Over time, that assignment grew and evolved and eventually became the basis for a full course on game design and crowdfunding. In end of semester reviews, students would often remark (with some surprise) about how writing the game manual and testing draft versions of their game brought into focus the lessons we had learned about technical documentation and UX testing in previous units; I could not agree more.

Unfortunately, the lack of scholarly studies or industry resources on these important aspects of board game design meant that I had to pull together disparate, piecemeal sources for my students to help them craft their game documentation. This study seeks to offer the beginnings of a remedy to that situation: through insights gained by interviewing successful board game designers about their game design process, manual drafting process, and prototype playtest data collection, I seek to create a resource that is valuable to both professional writing/technical communication (PWTC) scholars and board game designers who want to better understand how to create accessible and clear instructional documentation that keeps readers engaged. To that end, I have created a companion document to this study

that is aimed at delivering the key lessons learned through analyzing the best practices of board game designers in a format that is shorter and more accessible than the standard dissertation publication style.

So, Like, You're Talking About *Monopoly*, Right?

Trying to talk about modern board games can be a bit confusing, as the term encompasses a large range of games. For people who are not familiar with modern analog games, the term "board game" might conjure images of long, frustrating nights with the family playing *Monopoly* or *Uno*; for others, it might bring to mind serious people staring at chess boards in the park with furrowed brows; for yet others still, one might imagine a dimly lit basement littered with soda cans and bags of chips as players sit around a table, rolling dice and pretending to be wizards and warriors in *Dungeons & Dragons*. For this reason, I will be using the terminology for different major categories of board games as laid out in Stewart Woods' history of European board game design, *Eurogames: The Design, Culture, and Play of Modern European Board Games*:

- **Classical games**: "non-proprietary games that have been passed down from antiquity and whose authorship is presumed to emerge from multiple iterative changes over time," e.g., Chess, Checkers, Go
- **Mass-Market Games**: "commercial titles that are produced and sold in large numbers year after year, and which constitute the common perception of commercial board games," e.g. *Scrabble, Monopoly*, etc.
- **Hobby Games**: "games that are not targeted towards the general mass market but to a specific group who can be termed hobby gamers," e.g., *Settlers of Catan*, *Carcassone*, etc. (17)

For the purposes of this study, we will be focusing on the development and UX testing of hobby games. As a general rule, hobby games tend to focus on giving players as much agency as possible to control their performance in a game, provide multiple paths to victory, and use very limited luck/randomness mechanics to provide variety or limited uncertainty.

Due to its somewhat niche nature, hobbyist game players are involved with the production of both modern hobbyist games and paratexts meant to support those games. The website *BoardGameGeek* serves as a database of hobby games, hosts game-specific message boards, and acts as a repository for files associated with each catalogued hobby game (including PDF scans of rulebooks, rules translations, errata, player aids, quick-start guides,

fan-created expansions, and more). Some publishers will use local gaming groups to play-test their games and provide feedback on balance and mechanics, especially in the case of smaller publishers with fewer resources (Woods 138).

Hobbyist board gamers also contribute to professionally-produced products as well. As Woods notes, the "close ties between the hobby gaming industry and its customers can often result in hobbyists having a more formal relationship with publishers. Play-testing, the process of development and refinement through iterative play sessions, is often outsourced to gaming groups where in-house resources are limited" (138). In both official and unofficial capacities, hobby gaming enthusiasts straddle the line between producers and consumers of games, in large part because of the proliferation of simple and affordable digital design tools.

The symbiotic relationship between hobby games producers and hobby games players is an interesting one. While the paratexts created by hobby gamers lack the visual polish and professional quality of resources created by games publishers, they fill in the gaps left in instructional materials officially produced for the game. Players' passion for their favorite games—and their frustrations with existing game materials—drive their production of rules summaries and cheat sheets for complex hobby games. This shows that hobby game players have meaningful contributions to make to the game design process outside of weighing in on a game's mechanics and balance; they are able to make keen observations about the included documentation included with the game that is either being ignored by designers/publishers or is not being solicited in the first place. This points to a potential way in which designers could implement more robust UX feedback as they test their prototype games before publication. Some of this work is already made visible by designers on Kickstarter who upload their manuals/games for backers to try out, but it is not immediately clear what form this feedback takes, how it is recorded, and how designers choose what feedback to follow through on.

Overview of Turn Order

This study aims to discover how board game designers learn to write their manuals and other game components, and in what ways their manual revision process dovetails with their game prototyping and playtesting/user experience testing process. It will also focus on the ways in which board game designers solicit feedback from play-testers and fans during the iterative design process and, in some cases, during the Kickstarter marketing process with releasing "print-n-play" versions of games and/or pre-production instruction manual downloads.

Chapter 2 provides a survey of general game design and board game-specific design handbooks aimed at educating game-makers about the design process. In particular, this overview of published instructional materials will focus on identifying lacunae when it comes to advice on manual design and prototype testing. This chapter forms the basis for my argument that more attention needs to be paid to these two topics, to the benefit of game designers who have not yet found mentors in the design community (or for those mentors who would like to supplement their own experience with advice from others).

Chapter 3 outlines the methods used to recruit participants for this study and how data from this study was coded/analyzed. Due to time constraints and an initial overestimation about the availability of draft-documents from designers, my original data collection plans needed to be adjusted from the proposal for this study, which will be documented in detail in this chapter.

Chapters 4 and 5 shares my analysis of game designer participant responses to the open-ended interview questions outlined in the previous chapter. Chapter 4 focuses primarily on participants' iterative design process in general and specific considerations made for the drafting and revising of rules manual documents. Chapter 5 details the different approaches designers take in collecting and analyzing player responses during different stages of their playtesting process.

Chapter 6 provides a summary of conclusions to be taken away from this project, both in terms of how they might benefit the PWTC community and the board game design community. This chapter will also outline future research that could be built upon or extended from this research.

So, without further ado, let's learn how to play…

CHAPTER 2: LITERATURE REVIEW

Game Design Resources: Everything but the Manual

Writing good, clear instructions for game user manuals is a skill- and time-intensive task that requires just as much usability testing as the game that it accompanies. However, game design handbooks and online resources that are widely used and circulated within the hobby game design community often offer little in the way of advice for aspiring game designers when it comes to solid instructional design. The most recently published guide from Carnegie Mellon's ETC Press, *Tabletop: Analog Game Design*, is a fantastic resource when it comes to analyzing the design of popular modern hobby games and offers plenty of solid advice about designing a system of satisfying mechanics and interesting theme for players to enjoy. Unfortunately, only the "Filtering Feedback" chapter discusses how the designer of a game created a new expansion based on user-submitted design ideas, which touches briefly on the ways in which a designer might simplify and streamline designs submitted by users (Fay 61).

General-purpose game design books are similar in that they talk about rules in the context of building engaging systems but do not give any attention to explaining those rules to a user explicitly. Katie Salen and Eric Zimmerman's oft-cited *Rules of Play* game design handbook devotes a chapter to talking explicitly about rules and their function in defining the parameters of a game. Salen and Zimmerman establish three kinds of rules that make up games: operational rules (rules of play), constitutive rules (mathematical systems undergirding operational rules), and implicit rules ("unwritten rules" of etiquette and sportsmanship). The closest *Rules of Play* gets to talking about teaching players the rules of the game is in a discussion about designing elegant rules: the theme of the game and its operational rules should make the game's constitutive mathematical system intuitive and allow players to easily draw connections between actions and their consequences.

Similarly, both Raph Koster's *A Theory of Fun for Game Design* and Brenda Brathwaite and Ian Shrieber's *Challenges for Game Designers* discuss rules extensively in terms of their function as constitutive parts of a larger game engine. Rules in *A Theory of Fun* are described as the grammar of a game: Koster equates player actions with verbs and components as nouns, with the rules dictating how those parts of speech function together and play off each other. *Challenges for Game Designers* suggests full rulesets as the deliverables for the bulk of the challenges suggested for aspiring game designers to put

lessons into practice, however there is no discussion about what those rulesets should look like or best practices for communicating those rulesets to an outside audience.

Board Game Design Handbooks

Considering the movement away from dedicated rulebooks for video games in favor of interactive tutorials, I should perhaps not be too surprised that general game design rulebooks would shy away from devoting too much attention to the subject. However, I had hoped that board game-specific design handbooks would give more space to explicitly talking about how rulebooks are designed and revised. Unfortunately, even in board game-oriented design books, the amount of space dedicated to rulebook design was surprisingly brief. Though a well-written manual is indispensable to the success of a game and acts as the very heart of what makes board games work, the level of detail in these guides as compared to other parts of the design process covered tends to be quite sparse. I do not discount that, as a student and instructor of technical writing, I may have expectations for manual design instruction than the average game designer; however, in speaking with designers while recruiting for this study, it was not uncommon for them to lament the lack of resources on what they rightly consider to be an incredibly difficult genre to write.

Joe Slack's 2017 handbook on game design, *The Board Game Designer's Guide*, devotes a short, 3.5 page chapter to covering some basic but important manual design concepts. Slack begins the chapter with the important distinction that the rules manual is a dual-purpose document: "The main purpose of rules are to **learn a game** and to **refer back/refresh your memory**" (emphasis his) (131). The core focus of the chapter centers on three helpful rules for crafting effective manuals: they must be "easy to follow, include helpful visuals, and…walk players through the proper steps in order" (131). Though this chapter takes a somewhat cursory overview of some very basic best practices, even the limited attention paid to drafting a rulebook is absolutely welcome and quite useful to very new designers. However, more advanced or seasoned designers may be disappointed by a lack of more advanced tips, as much of the content one can glean from this chapter could otherwise be learned through reading multiple rulebooks over the course of one's gaming career.

In asking designers about board game-specific design books that they would recommend to new designers, one of the most common recommendations was the *Kobold Guide to Board Game Design*, edited by Mike Slinker. This collection of essays from such

heavy-hitters as Richard Garfield, Rob Daviau, and Steve Jackson is organized into four distinct sections: contenting, design, development, and presentation. Selinker's chapter on rules manuals ("Writing Precise Rules") packs an impressive amount of detail into a scant nine pages. This chapter assumes the reader knows the basic purpose of the rulebook and instead devotes much of its attention to elements of good style that will make the rulebook more accessible to a general audience. Selinker's style advice recommends using simple language as much as possible, keeping keywords consistent and descriptive, and urges writers to add a bit of flavor to their text to make reading it fun (without throwing in so much flavor text that the rules become difficult to quickly scan when being referenced to refresh a player's memory or decode how to rule on an edge case). The chapter brings in example text from popular board game manuals to demonstrate the concepts outlined in the chapter to great effect without bogging the reader down in superfluous detail.

One of the most thorough and interesting game design handbooks reviewed for this project was *The White Box Essays*, a bundle of board game design essays by Jeremy Holcomb that came in a box with game prototyping materials such as dice, colored cubes, cardboard chits, and multicolor wooden person tokens (or "meeples" in board game parlance). The 10.5-page chapter on rulebooks comes relatively early in the book and is the only reviewed chapter that speaks to the implicit/explicit rule dichotomy that Salen and Zimmerman cover in detail in *Rules of Play* as an important part of game manual style. This chapter gives a thorough explanation of each of the crucial sections of a standard rulebook and attends to the order in which those sections should appear to make the rulebook easy to understand for a new reader. Though this chapter does not cover in any significant detail how to conduct usability testing on the manual, this is covered in later chapters.

Miscellaneous Resources

Since game design publications are not addressing the design of instruction manuals, I started exploring hobby game designer forums and social media groups to see which resources were often recommended when the subject of rulebooks was brought up by other users. This initial investigation revealed a few online resources that covered best practices for instruction manual design explicitly. One of the more popular sources, "The Rulebook Cookbook" is an ongoing series of blog articles written by game designer Dustin Oakley in the latter half of 2016 and first months of 2017. This series of blog articles starts with a general overview of the constitutive parts of most hobby game manuals and subsequent

articles cover individual manual sections in-depth. Another resource popular among online game design groups is a recording of designer Mike Selinker's 2014 PAX Dev speech on ten tips for writing rules. This hour-long talk is perhaps the most detailed resource available for hobby game manual design currently available. Other resources commonly cited within the online hobby game development community consist of 1-2 page blog posts or small web pages that outline the main sections commonly included in rules documents with short explanations of what kind of material should go in each section.

There are currently few studies that look into user experience testing in the realm of hobby games. Jonathan Barbara has published two studies on the subject of measuring user experience in hobby games wherein the Games Experience Questionnaire (GEQ) was used as the experience assessment tool. The GEQ is traditionally used for testing user experience in video games, but Barbara found that it was just as effective for gauging user responses to hobby games, and could potentially be used to evaluate card games, tabletop games, or dice games (77). However, as far as hobby game design practices are concerned, very little attention is being paid to the methods employed by hobby game designers in professional/technical writing literature—which is unfortunate, as the current age of hobby game design is seeing true innovation in terms of novel and interesting designs.

As this review of game design literature illustrates, information about board game instructional documentation and playtesting is unfortunately quite thin. While it is understandable that designers may be more interested in building games with interesting mechanics and compelling themes, even the best-designed game in the world will make it to few dining room tables if the accompanying manual does not effectively teach people how to play it. In the next chapter, I will document how I have drawn upon the knowledge of experienced board game designers through qualitative interviews and discovered the ways in which those designers help the primary consumer of their games unlock the potential found in a box full of cards, tokens, and miniature figurines.

CHAPTER 3: METHODS

Considering the dearth of research currently available on board game designers' practices, it was important to me to format this study in a way that put the voices of designers front and center. While I do have some experience with designing board games and even more experience with helping students design and create documentation for their own games, my experience is rather limited by the restrictions of the classroom setting. Though some of my students would eventually go on to self-publish their game through Kickstarter after they had finished my course, I have not yet had the opportunity (or time, for that matter) to bring any of my games past the prototyping phase. This put me in the unique position of having enough experience to know where potential sticking points in the manual design and playtesting experience might be, but inexperienced enough in the process to know that this study would benefit most from the exploratory freedom that qualitative interviews would afford. The board game manual is an incredibly unique form of technical writing, and my goals for this project are twofold: to offer the PWTC community some insight into how board game designers tackle the incredible challenge of writing their manuals and collecting playtest data and to synthesize the responses from experienced designers into a format that will help illuminate the process for new designers looking for advice.

Games have long been a passion that I have shared with friends, family, colleagues, and eventually my students as an integral part of my classroom pedagogy. It is my hope that this project can help PWTC scholars start to peer underneath the hood of these complex cardboard systems and consider the ways in which board games may find a home in the technical writing classroom. To this end, the research questions that this project seeks to answer are as follows:

How do hobby game designers learn to write their game manuals?

What special considerations are made for the visual design and content of board game manuals that help keep readers engaged and prepare them to teach the game to others?

What kinds of data do hobby game designers collect during prototype play-testing, and how does that data feed into the iterative design process?

Participants

In order to learn more about how board game designers craft their manuals, I needed to find a group of designers that were willing to talk about their craft in detail. I was at first unsure whether designers would be willing to take the time to speak with a young researcher, considering that they tend to be quite busy; rarely is board game design a full-time, primary job—it is more often than not a labor of love and secondary source of income, especially for small designers. As part of a board game design course that I taught in a previous semester, I had encouraged students to reach out to designers via email and social media as part of their research for a white paper on modern board game design trends and crowdfunding best practices. I was encouraged by the number of students who were able to cold-call designers and receive great written responses to their research questions, and the students had commented on how eager these designers were to talk about their craft. Heartened by this, I started devising the best way to quickly and efficiently contact as many designers as I could. However, I was concerned that game designers might see the request for an hour-long, synchronous interview as a bigger ask than answering a few questions via email. And if I wanted to recruit more established names in the board game industry, I was going to need to find a way to make a more impactful first impression than an email or message on social media would afford.

An opportunity to speak directly to board game designers presented itself in the form of the Origins Game Fair in Columbus, OH: a mid-sized board game convention attended by about 20,000 game fans, designers, and vendors. While a larger convention such as Gen Con is both closer in proximity and larger in attendance, I opted for Origins because its smaller size made it more likely that I could have more sustained conversations with prospective participants about the project. One of the challenges of this approach was finding a way to quickly and succinctly offer an elevator pitch for this study that would illustrate the importance of my research and my expectations for participation to designers at the start of a busy convention season. Besides Origins, the summer board game convention season includes such small-scale conventions as Dice Tower East and Geekway to the West, and large-scale conventions Penny Arcade Expo Unplugged and Gen Con. These conventions allow for board game designers to show off their prototype games to enthusiasts, sell their existing games to eager consumers, and debut their new games to a large audience ahead of retail releases—giving die-hard fans an opportunity to be the first to bring a new game to the table. Understandably, even asking for an hour of time from these designers was a difficult

ask, so I approached Origins with the goal of making contact with at least 50 game designers with whom I could follow up via email or social media.

To facilitate my pitch to designers, I designed a playing card that described basic details about my research project on one side and a call to action on the other side. During the three-day convention I went around to every booth and asked to speak with the designer of the games they were showcasing. I then used the project card as a visual aid to help explain the details of my research and asked the designers if they would be willing to give me an hour of their time for an interview. Each designer that I talked to received a copy of my project card along with a business card with my contact information. I returned home with approximately 50 business cards from the designers I spoke with and created a spreadsheet that detailed which games they designed and made notes of designers that were particularly well-respected and authoritative in the board game community; those designers were given priority as I reached out via email to schedule interviews. I also prioritized lesser known designers who seemed particularly enthusiastic about either my project in particular or good manual design specifically. From this pool of designers (plus three that I reached out to on social media), twelve agreed to do an hour-long interview with me over Skype.

Figure 1. Recruitment playing card distributed at Origins 2019. One side lists information about the dissertation project's goals and deliverables. The other side details how game designers can help with this project.

Data Collection

Board game designers that agreed to participate were contacted on Skype for an hour-long interview, which was recorded with permission from the interviewee. Prior to the interview, I developed a list of open-ended questions separated into four distinct categories:

1. general questions meant to gather basic information about the designer and their board game design process
2. manual design questions investigating how they learned to write the genre and common pitfalls in manual design
3. playtesting questions that interrogates how designers gather and analyze playtesting data as part of their iterative design process
4. design support questions about how publishers and online crowds contribute to the design of both the game and the manual (See Appendix A for the full list of interview questions).

I took a general interview guide approach to the hour-long sessions, using a standardized list of questions to guide the interview and offering follow-up questions for clarification or to encourage participants to expand on particularly salient points. I chose this format because its "flexibility takes precedence based on perceived prompts from the participants" (Turner 755-6). In drafting my interview questions and considering the format of the interview, I wanted to give due deference to the expertise of my participants and recognized that my lack of game design experience would make it difficult to anticipate topics of interest that may organically manifest in the course of the interview. By taking an active interviewing approach, I was able to attend to the affordances of my participants' responses and probe at observations made in the moment as they revealed themselves. Holstein and Gubrium describe this as a benefit to the active interviewing approach, which "orients to, systematically notices, and gathers data on the simultaneous coding and construction of knowledge within the interview." (57-8). The standard interview questions compiled prior to interviews provided much-needed structure to the interview process and opened up opportunities for drilling down into more detail as participants unfolded their answers. Additionally, as I interviewed more designers, the details and insights from previous interviews opened up new opportunities for informed follow-up questions in the latter interviews.

Interviews lasted one hour on average, with a small number of interviews with particularly enthusiastic designers lasting about an hour and twenty minutes and one interview only lasting 35 minutes due to time constraints. In total, I collected twelve hours

and seven minutes of audio for transcribing. Using Adobe Premiere, I was able to excise the audio track from the video track and save it as a separate file; the video data of the interview recordings was deleted after the audio files were secured and saved separately. Those audio files were then uploaded to an automatic transcription service.

On the recommendation of one of my mentors, I used the Temi automatic transcription service to process the interview audio into written text for analysis. Temi was chosen because it uses algorithmic transcription rather than relying on a human transcriber. This provided two-fold benefits: 1. transcripts on average took approximately five minutes to process, which allowed me to almost immediately review the transcript while the interview was still fresh in my mind; 2. the lack of human actors in the transcription process and the encrypted data transfer and storage on Temi allowed me to minimize privacy concerns for my participants. One of the significant drawbacks of using this service was that—due to the algorithmic nature of the transcription—there were some basic errors differentiating between homonyms and the names of board games were often incorrectly transcribed. These were relatively easy mistakes to fix in the transcript file and did not significantly impede analysis. Transcripts hosted in my private account on the Temi website were editable and were automatically arranged with timestamps, which allowed me to listen to the relevant portion of the interview if I needed to make small adjustments to the transcript. Those transcripts were then exported as PDF files for analysis.

Coding & Data Analysis

In total, the twelve interviews came out to 174 pages of automatically transcribed audio (see Appendix B for a sample interview transcript). To prepare the files for analysis, I transferred the files to an iPad and used an application called LiquidText to annotate the transcripts using the built-in highlighting, excerpting, and pen markup tools. LiquidText was chosen because of its robust editing features and export options. Chief among the reasons this application was chosen was the ability to automatically create a printout of all highlighted material and notes with all other text excised from the document. This excerpt document made it easier to arrange relevant statements from my participants into categories based on how they were coded, as I did not have to sift through the entire document to find those passages.

Coding and analysis of the interview transcripts was conducted with an issue-focused approach: since all twelve participants were asked a similar set of questions, my goal was to

track similarities between participant responses while taking note of moments of distinct divergence between participant responses. An issue-focused approach focuses on "what has been learned from all respondents about people in their situation" (Weiss 153); considering the relatively small sample of board game designers interviewed for this project, a distinct focus on their game design, manual design, and prototype testing methods illuminates trends that are likely to apply to the population as a whole. While each designer had their own unique approach to their design process, there were enough commonalities between participants that generalized trends emerged from the coding and analysis of their responses.

First-wave coding and analysis of transcripts was conducted concurrently with data collection. I reviewed interview transcripts, focusing on highlighting the most relevant and interesting excerpts from participant responses. Once relevant excerpts were highlighted, I began categorizing those highlighted portions using structural coding tags by using a digital annotation program to write tags directly in the margins of the transcript alongside the highlighted material. Structural coding, as described by Johnny Saldaña in *The Coding Manual for Qualitative Researchers*, "applies a content-based or conceptual phrase representing a topic of inquiry to a segment of data that relates to a specific research question used to frame the interview" (84). This was particularly helpful in organizing participant responses to the prompt "Tell me about your game design process," which usually contained a mix of relevant information about their manual design/revision process and data collection/analysis from playtesting.

The first three interviews that I reviewed started with exploratory annotations. The first pass that I took, I wrote down brief summaries of the highlighted material as signposts for further review. After taking the first pass, I reviewed the annotations on those three interviews to look for thematic commonalities between the annotations to develop a short list of codes that could organize these annotations into more coherent categories. Using these annotations and the text/organization of the interview questions as a jumping-off point, I created a list of key phrases including: learning the genre, +/- detail, materials/physicality, tone, visual hierarchy, accessibility, data collection, playtester selection, prototyping, and a "miscellaneous" tag to account for insightful comments that do not fit within the established codes. I then went back and annotated the initial three interview transcripts using this newly-generated list of codes. Satisfied that my codes were sufficient for organizing the three transcripts, I applied those codes to the other interviews

After the interview transcripts were coded, I excerpted the relevant passages into a document that collated all responses from each designer into their own separate document,

organized by code/topic. Having each participant's responses organized by code allowed me to better assess which participants spoke most thoroughly on each given topic, which helped me prioritize which voices to elevate for various sections of my analysis. Once all of the transcripts were coded and organized by participant, I made my first attempts at drafting a writeup of my findings. However, I found that having those excerpts spread across multiple documents made it too difficult to see the trends in designer approaches. Robert Weiss suggests that when an excerpt file gets "too bulky," breaking it down into narrower topics is necessary to facilitate analysis (395). On this suggestion, I created two separate documents to organize all participant responses by topic: one for board game design process generally and manual design process specifically and another document for playtesting/user experience testing. The secondary organization of participant responses allowed me to track major differences and similarities among participant responses to find broader trends in how designers approached their iterative design process. These two sets of organizing documents allowed me to get a "view from above" as it were, and made visible the ways in which different designers prioritized manual drafting and playtesting in their larger design process.

Once all of the relevant participant responses were organized by code into the manual design and playtesting documents, I began sorting the responses in each section based on their similarities/differences. For example, designers who tended to begin playtesting with extremely rough prototypes were placed together and color-coded with yellow highlights; designers who tended to begin playtesting with polished prototypes with full graphic treatments were banded together and color-coded with green highlights. Using this method, I was able to visually represent the different approaches that designers took and easily compare those approaches with each other. It also gave me a perspective on how many designers took a distinct approach to their design/testing process to better map where points of contention or agreement lay between participants.

Between the two document sets organized by designer and by code, participant responses were organized in a way that let me begin drafting chapters 4 and 5. The code-organized documents provided a basic structure for organizing these analysis chapters and acted as a pseudo-outline for drafting. The designer-organized documents ensured that I could drill-down into a particular designer's observations as I wrote about specific examples from their experience. Having documents that provided a "view from above" and a "view from the ground" allowed me to better understand general trends in designers' responses while also being able to highlight specific approaches different designers took in their iterative design process for more detailed examples.

Ethics, Reciprocity, & Limitations

In asking board game designers to take time out of their busy schedules and share their knowledge and experience with me, I recognize that I stand to benefit from their time, labor, and expertise. While the designers that I spoke with were mostly thrilled to have a chance to talk in-depth about their craft, it was important to me to find a way to establish some reciprocity with the community on which I am basing this study. To that end, I informed the designers that—in addition to the dissertation write-up—their contributions to this project would eventually be put toward creating a free and open-access guide to writing engaging and user-friendly rulebooks and best practices for collecting playtest data on prototype games. A comprehensive guide on these subjects would go a long way in helping fledgling designers feel enabled to make engaging and accessible rules documents for their prototype games without having to hunt down the few resources currently available on the subject. I do not seek to replicate the work of the several books written on board game design generally, as even after extensive interviews and analysis of designer responses, I do not share my participants' expertise in creating games; however, my experience as a technical communication scholar and composition instructor enables me to craft a resource on the drafting and revision of rules manuals. As I am receiving knowledge from these kind and talented designers, my open-access guide can establish a level of reciprocity with the game design community at large.

Due to time and budget constraints, this study is not without its limitations. Considering the massive boom in board game production in the last ten years, my sample of twelve designers is a very small subset of the totality of game designers. Moreover, the location and size of Origins Game Fair necessitated a sample that was disproportionately located in the midwest United States. As such, the generalizability of this study to the larger US and global board game design community is uncertain. Another limitation to this study is the self-imposed time constraints of the interview: while many of the interviews with designers could easily have gone longer as they unraveled more details about their process, I was cognizant of maintaining a respect for the timeframe that I gave them at the beginning of the interview so as not to take up too much of their time. It is my hope that I will be able to follow up with those designers for future research, and to that end I have collected permission from most of these designers to contact them again as my research continues.

CHAPTER 4: ELEMENTS OF MANUAL DESIGN

Design Experience

In total, eleven game designers and one editor were interviewed, all of whom have written at least one rulebook for a board game that they have had a hand in designing over the course of their careers. To gauge the depth of their experience, the first question of the interview asked them to identify how many games they have designed over the course of their careers. While I had believed this question to be straightforward, I had not anticipated the range of different experiences offered. On average, respondents worked on somewhere between three to five games as lead or sole designer. However, the bulk of the respondents work closely with or are in a leadership position of a board game publishing company, and as a result, they have been involved in the design and production of games not of their own design, such as working on developing a game to be market-ready or collaborating with other designers as part of a playtesting group.

To get an impression for how manual drafting and playtesting fit into each designer's workflow, each designer was asked to outline their generalized process for designing a game from the initial game concept through to completed product on store shelves. Though each designer described their own unique process, a few notable details emerged that were held in common between them.

Designers identified "mechanics" and "theme" as being generative subjects for conceiving of new designs, though none of the designers expressed a preference for one over the other as they begin to brainstorm new games. The "mechanics" of a game are a set of rules or conventions that dictate what actions players may take over the course of the game. In chess, for example, players move their pieces around the board in an attempt to limit the number of safe squares where their opponent can move a piece without risking its capture—for this reason, chess is considered to feature an "area control" mechanic. "Theme" provides narrative cohesion to the set of mechanics that define a game; in our chess example, the theme is a war between two opposing kingdoms, with the goal of defeating your enemy by capturing your opponent's monarch. Chess' war theme makes it easier for players to understand not only the goal of the game but also what the different pieces can and cannot do: "pawns" are numerous but they are difficult to use offensively, whereas "knights" are limited in number but are difficult for other pieces to attack and defend against because of

their increased mobility. By borrowing the settings, genres, tropes, and archetypes from other media, game designers not only elevate the actions taken by players (e.g., you're not just moving a piece from one square to another…your knight is preparing to attack the opposing king!) but also provide a narrative logic for players to understand the context and consequences of their actions on the game world.

While the majority of designers stated that they have taken "mechanics-first" and "theme-first" approaches in the past, their initial ideas for games do not tend to prioritize one over the other; much more likely is that designers conceive of a concept that has not been attempted before or breathes new life into a clichéd approach. Ben Harkins remarks that he tends to think of theme and mechanics together and does not separate them the way other designers do: "I feel like the escapism of the game and the thematic rationale behind it is really important. The motions that you're doing in the sort of puzzle you're solving." Similarly, Curt Covert stated that he has sought inspiration from board games he played as a kid for some of his designs, such as taking the chaotic mechanics of the classic marble-suspension game *Kerplunk* and remixing it into a modern design with an eldritch twist, *Tower of Madness*.

As far as the design process is concerned, designers were relatively split on when manual-writing and playtesting should occur in the design process. Keith Matejka shared that while he has designed "theme-forward" and "mechanics-forward" games, the most important aspect he searches for is the "feel" of the game; for this reason, it is important to get a prototype drafted as quickly as possible—"until you put it into a…playable form, you don't even know what you have. And quite honestly, you end up building things you hadn't thought about as you start." For Matejka, the act of prototype development allows him to flesh out the details of the game, as it prompts him to consider the gaps in his initial design, both in terms of mechanics that facilitate the core gameplay loop or components that help players track important pieces of in-game information. Attending to the physicality of the game allows the designer to work through the efficacy of their design before involving playtesters in the process.

A different but parallel approach was described by other interviewed designers: instead of building basic prototypes first, some designers prefer to flesh out the details of their game by writing the rules manual in the early stages of development, before a prototype is created. Though her process differs from many of the board game designers she knows, Lindsey Rode prefers to write the rules for a new game idea first, "because it forces [her] to fully develop the idea before putting it down on a table…[it can] help you understand

whether there's any major holes in the mechanics, like if you can't actually finish the win condition because [there is no] rule for that." The act of putting the imagined game idea into a manual forces designers to contend with the small, fine-grain details that may otherwise be glossed over. In addition, early manual drafts can give a good indication about whether a particular mechanic can be clearly explained to prospective players in the first place. One designer commented that there have been times when a mechanic or process in a game needed to be excised because it was prohibitively difficult to explain in the rulebook—and while video tutorials may have been able to explain the mechanic more clearly with the use of animation or demonstration, it cannot be consistently relied upon that players will have the requisite internet access to view paratextual documentation.

There are advantages to prototype-first processes as well as manual-first processes, and each has their own distinctive drawbacks. Early prototypes can be a great way to attend to the physicality of the game to make sure that information can be easily tracked and that the core gameplay loop is fun for players to engage in, from executing in-game mechanics to the simple act of moving pieces around on a board. There are some game ideas that seem fantastic conceptually but fall apart when put into actual play. However, building even simple pen-and-paper prototypes is a time-consuming process and does not address the challenges in documenting how the game is played. It also allows for quick and easy changes to rules and mechanics as designers can simply choose to interact differently with their prototype pieces to gauge how changes to the design will affect game feel. Conversely, a manual-first approach is more likely to highlight gaps in the design that need to be addressed, as everything necessary to "run" the game must be part of that documentation. In addition, designers can highlight key areas of the rulebook that the designer found more difficult to articulate, which may signal that the mechanics of the game need some work to find a version that is easier to memorize and execute for players. It is also helpful for tracking changes between iterations of a game, as there is consistent documentation for each "version" being experimented with from its very first iteration; this can be helpful for documenting mechanics or aspects of the game that needed to be culled in earlier versions but could be reintroduced after other parts of the core gameplay loop are revised (or, potentially, a new game may stem from mechanics that are culled from early drafts of previous game). However, manual-first approaches do not offer the flexibility and physicality of a prototype-first process and may be more difficult for more visual learners/designers to implement in the early stages of design.

Design Process

Each designer was asked to share their design process from the conception of an idea for a game through to when that game arrives in the hands of eager players. While all of the designers had their own unique process for developing their games, there were broad, generalizable patterns in how designers approach the iterative design process. Board game designers start with a general concept or inspiration, such as: unique combinations of existing mechanics, an interesting or timely theme, sharing a unique narrative, remixing an old board game design, or a broad conception of what they want their players to experience. From there, designers build upon that initial core idea by creating prototypes or writing a rules manual to start establishing a compelling core gameplay loop: a simplified set of mechanics that represents the foundational mechanics and actions in a game. At this point, preliminary playtesting usually begins, with designers playing their early prototypes with small groups of friends, family, and other designers. This stage of the iterative design process is where prototypes undergo the most rapid and drastic transformations, as designers adjust the initial board setup, mechanics, and win conditions of the game to smooth out its pacing, proliferate interesting decision points, and maximize moments of player engagement (the latter including moments during a player's turn and while waiting for other players to take theirs). During iterative prototype testing, the designer more often than not will verbally explain the rules of the game to the other players rather than relying on a rulebook; since the game is still very much in flux, designers focus their energy on testing the mechanics and feel of the game and are less interested in the clarity of the rules manual—which may be something as loose as a collection of design notes or as meticulous as versioned iterations of the manual with patch notes describing changes from version to version.

When the designer feels that the game's design has developed enough that it is ready for a broader audience of playtesters, they reach out to their local or online communities of players for feedback on the game. For designers with local playtesting groups, it is generally preferred for the designer to be physically present in the room to observe and take notes during play; for this reason, they do not play the game themselves and instead take on a purely observational role. For designers that need more playtesters than are locally available, they send prototype print files for remote playtesters to make their own copies of the game for testing purposes. Feedback from those remote playtesters can take the form of filling out questionnaires, recording play sessions, and writing detailed play reports. Designers take the feedback from these sessions and adjust the design of their game based on trends that they see

from playtesters regarding game balance, moments of sustained or lagging player engagement, and observing strategies that make the game less fun to engage with.

As iterative redesigns of the game address increasingly small changes to the mechanics, designers typically shift their attention to user experience. If designers were verbally explaining the rules of the game during previous playtests, they now shift to having playtesters read the rules manual to learn how to play the game. While designers tend to use the same playtesting groups across multiple iterations of the game as they are developing the mechanics, they often shift to "Kleenex Testers" for assessing user experience—that is, playtesting groups at this stage will play the game once to assess the effectiveness of the rules manual and how game components communicate information to their players. During this stage of playtesting, the rules and mechanics of the game change very little as designers focus more on the efficacy of their rules manual. At this point, designers often bring in editors and graphic designers to give their manual a graphic treatment, including diagrams, iconography, and "flavor art" that decorates unused white space. This is often one of the last steps before preparing the game for production and distribution.

As previously noted, each designer had their own unique process and set of best practices that they followed for designing and playtesting their games. While most designers followed the same basic pattern for moving through the iterative design process, each designer had their own priorities and areas of focus unique to their experience. In the following sections, we will be taking a closer look at two specific aspects of the larger board game design process: drafting/revising the game manual and methods for extracting useful data from playtesting sessions.

Manual Drafting

> "When [Rob Daviau] was working at Hasbro, they actually did galvanic skin responses to see what parts of the game are most fun. And he had a funny thing that he said, which is that the most exciting moment of the game is when you open the box. That's when everyone is most excited; that's when you have the highest emotional response. Everything is full of possibilities. Everything is new. He said then someone pulls up the rules and as he puts it, that's where fun goes to die. Nobody likes to learn rules" - Eric Zimmerman

The board game manual is simultaneously the core of the board game experience and a document reviled by players looking to learn a new game. Unlike video games, the mechanics for which are controlled and enforced by a computer, board games require human agents to place boundaries on player actions. In the last ten to twenty years, video games have

relied less upon player manuals in favor of interactive tutorials that teach players how the game works through regular gameplay. Unfortunately, board games do not offer such affordances: generally speaking, one player must read the rulebook to gain an understanding of the ludic landscape, and that player then translates the instructions to the rest of the group. While the last five years have seen an uptick in the development of video tutorials for board game instructions, these are always accompanying paratexts to the written manual, as publishers cannot reasonably anticipate that all of their players will have the requisite access to a computing device with a stable, high-speed internet connection.

Considering the dearth of resources available to board game designers about writing rules manuals, it was difficult to determine ahead of interviews how board game designers got their heads around the genre for the first time. A majority of interviewees did not consult articles, books, or convention presentations as their primary exposure to how to write rulebooks; instead, respondents tended to approach rulebooks through their own experiences and preferences with learning games from other designers' rulebooks. Many of the interviewees noted that they were the go-to person in their gaming group who would read the rulebook for a new game ahead of game night and would verbally teach the game to the rest of the group before play. Ben Harkins recounts how his experience in translating board game manuals into verbal tutorials for his gaming group helped him understand the genre better: "it's often me who's the one who's willing to read through the rulebook, can regurgitate it to everyone else in a way that's a little more sensical." This was a common refrain from many of the designers interviewed, that the act of translating board game manuals into verbal tutorials was a key part of their experience learning the genre. Exposure to multiple different rulebook styles of varying levels of complexity and the act of translating rules from a structured document to a looser style of verbal presentation helped designers get their heads around the structure of rules and enabled them to develop heuristics for understanding best practices for how to move through a ruleset without confusing the other players in their group. It also gave designers a keen eye for document design, as they came to an ad hoc understanding of what design features were accessible to new players and which design features tended to be overwhelming to new readers.

Game designers often credited the works of previous designers as their main source of inspiration for developing their own manuals. Keith Matejka likens his process of learning the genre of board game manual writing to his experience as a musician:

> I spent a lot of time practicing and listening to my favorite Metallica records and just learning those riffs and playing along with them to emulate my

> heroes. And you end up kind of taking on some of that personality, but you also learn a hell of a lot of like, just kind of instinctively of the right way to do things… And I think you can take that approach with rulebooks as well.

Learning through mimicking the designs of manuals for similar board games accounted for the bulk of designers' responses for how they learned to write their own manuals. What starts out as trying to copy or duplicate an existing format results in learning the affordances and drawbacks of different styles of instructional material as the designers take their manuals into user testing and note what works and what tends to cause confusion for players. As important as "standing on the shoulders of giants" is for designers to understand the genre, their experience with UX testing on their manuals helps them understand what design features end up being most efficacious for the types of games that they tend to design. For example, Lindsey Rode recounts how her early experience working on heavily technical manuals for war simulation games gave her a better understanding of how to organize her instructions in a more structured way. However, when it came time to design her own game—a social deception party game called *Countdown: Action Edition*—she recognized that the tone of the game and the audience that it would attract would not react positively to the dry, rigid instruction style that war-games utilize. So while her rulebook for *Countdown* provides clear, organized instructions to the player, they are delivered with a more playful, conversational tone that welcomes new players into the learning the game in a much gentler manner.

Influences from Designers' Jobs & Education

Other than an ambient understanding of rulebook structure gleaned from playing many different games, designers also look to other rulebooks of games in the same genre as the game they are developing or look for rulebooks by designers for which they have great respect. Cole Wehrle specifically recounts how classic war game manuals constituted the model for "The Law of Root," the heavily structured rules glossary for *Root*, which is accompanied by a "Learn to Play" guide aimed at first-time players of *Root*. Wehrle suggested that focusing so heavily on using old war game rulebooks as a model was not without its pitfalls: many of these rulebooks are not terribly user-friendly to the first-time player and are structured in ways that modern board game rulebooks have moved away from in favor of more user-friendly designs. Wehrle's previous experience with writing rulebooks, the feedback he got from players on those rulebooks, and exposure to a myriad of modern board game rulebooks allowed him to craft a traditional war game style rulebook but, more importantly, allowed him the insight to know that players would have a difficult time learning

from such a heavily-structured set of rules. That is, Wehrle understood that while a war game-style rulebook is preeminently useful for looking up specific rules questions, it is not an accessible form for learning the game for the first time—thus necessitating a secondary "Learn to Play" rulebook for first-time players.

Designers also often related their board game design and manual design approach to their previous experience in their day jobs, previous employment, or educational background. Ben Harkins credits his 15 years of computer programming and project management for his talents in procedural thinking and systems-thinking; in particular, he draws a parallel between establishing key words in a rules manual and "properly naming things and referencing them consistently" in computer code. He also related his ability to write clear procedural instructions for humans to his experience with procedural logic in computer programming. Curt Covert relates an opposite experience with manual writing that he attributes to his creative writing background: "My natural inclination was to use descriptive words and very often what should have been a keyword might have had three words relating to the same thing, which is of course a nightmare." His penchant for creative language meant that the first edition of his rulebook for *Cutthroat Caverns* was light on keywords in favor of descriptive text, which ended up being revised in the second edition printing of the manual, adding more keywords and visual elements like flow charts to aid players. And while Covert admits that his use of more descriptive, creative language can at times make his manuals more difficult to read, he also credits the success of the rulebook for *Before There Were Stars…* to his unique blend of technical and creative writing: "I was able to convey emotions and convey clear, methodical step-by-step mechanical rules and just they worked in unison." This combination of the emotional and the technical works particularly well for a game like *Stars*, which is a narrative game where players take turns creating origin myths by selecting constellation cards that represent character attributes or animals and using them as narrative inspiration. Covert's creative writing roots allowed him to bring out the emotionally-impactful aspects of this narrative-building game in the manual itself, which is usually a fairly dry document; the presentation of the rules using more emotionally-impactful language signals to the readers exactly what kind of game the designers intended it to be.

Curt Covert also relayed an important lesson learned through his work—the difference between East Coast and West Coast learning styles:

> Apparently they brought it up in terms of software folks who go from location to location instructing people on how to use new software and they create technical manuals for that. It had been documented that east coast and west coast people process those manuals slightly differently. East Coast is very

> much tell me what I need to do. I do this and this and this. Great, thanks. And West Coast is like, okay I'm doing this and I'm doing that, but why am I doing this? …It becomes less about order of operations and more about impact and consequence. Starting to understand the machine through doing or understanding the process, in order to solidify how that process works.

In order to account for both of these learning styles, Covert writes his rulebooks in ways that appeal to both of these demographics' preferences for instruction style. He lays out the order of operations for a turn or action first and foremost for the East Coast-style readers but then follows up with an explanation of the implications of one's actions for the West Coast-style readers. With the latter, Covert stated that he needs to thread a fine line between making sure readers understand how their decisions affect the larger game system but takes great pains to make sure the game manual does not turn into a strategy guide. Part of the fun of playing a game is discovering strategies and interesting interactions, and providing too much information on strategy runs the risk of smothering the player's ability to discover these strategies themselves.

Writing Better Manuals: Lessons Learned from Designers

While the insights from interviewed board game designers yielded some interesting observations about their manual design process, a not insignificant portion of their comments reflect much of what we already know about good document design broadly. One of the most important take-aways stressed by designers is that effective use of white space helps make the rules manual more accessible and approachable. Cole Wehrle gave the example of *Blackout: Hong Kong* as a rulebook that is difficult to approach because of a lack of white space: the rules manual has several instances of boxes within boxes containing important information about the game with very little visual indication of which text boxes to read first or where to start on the page (Figure 2). While the rulebook for *Blackout: Hong Kong* does use visual elements such as colored boxes to break up the page and callout important pieces of information, large blocks of continuous text and a claustrophobic layout makes the rules seem more complex and difficult than they really are in terms of content. Extending the rulebook by a few pages would have given some of the more crowded pages a little more white space to help guide the reader through the content and make the rules seem less daunting to the first-time reader.

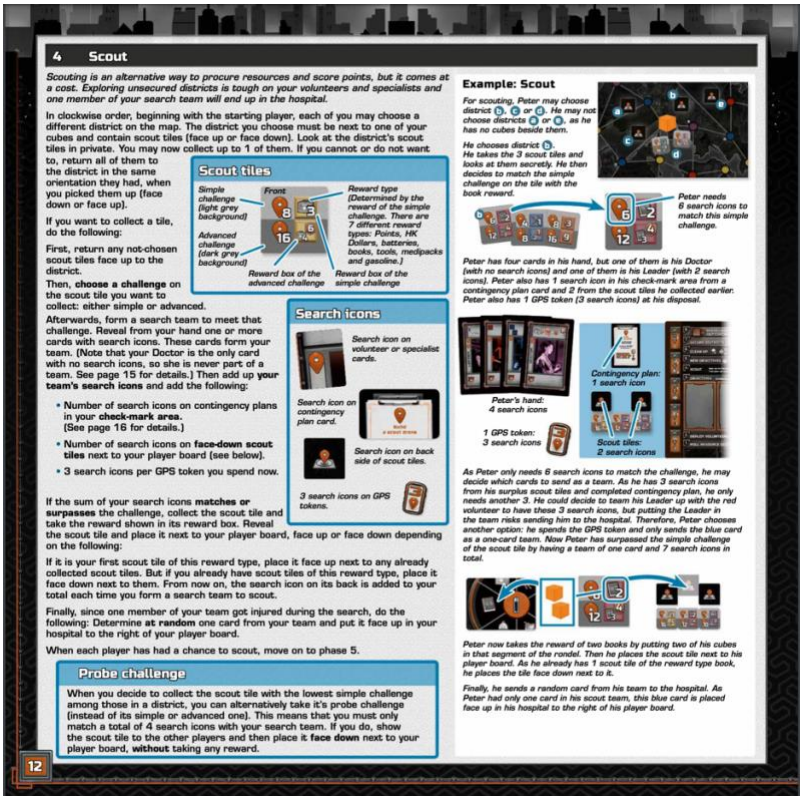


Figure 2. Example page from *Blackout: Hong Kong*'s rulebook.

Designers also stressed the importance of visual diagrams and colored breakout boxes for calling attention to particularly important or confusing portions of the rulebook. Visual diagrams that duplicate textual information can be helpful for explaining particularly complex topics or as a tool for readers to double-check that they understood a textual explanation fully. Many times, diagrams will accompany a written example of a mechanic being described somewhere on the same page, such as a narrative account of a sample player turn or portion of a turn. Diagrams should not be used as the sole source of information in a rulebook, as often the exact wording of how a mechanic is explained is used to determine edge cases and a visual-only explanation leaves far too much room for interpretation, especially when the specific order in which events occur can have an outsized effect on gameplay. Similarly, designers noted the importance of duplicating information in colored boxes set away from the main text of the rulebook to call attention to important rules or remind players of an important mechanic discussed earlier in the rulebook that has an effect on the mechanic being explained.

Repeating crucial rules or pieces of information throughout the rulebook in this way can be helpful to readers trying to keep all the rules of the game in their head as well as aiding veteran players with locating relevant rules when they use the rulebook as a reference document. However, board game designers spoke about a key tension between necessary

repetition and brevity in their documents. Repeated reminders about the goal of the game can be useful throughout the rulebook because of how central understanding the game's goals are in order to understand how the mechanics help players arrive at those goals. Eric Zimmerman elaborates on the tension between redundancy and brevity:

> the more redundant you are, the better in a sense because if somebody misses something, in other words, if you talk about the goal of the game in the introduction and also in the section on the goal and in the conclusion of the rules, they're definitely gonna get it. They'll understand it. But if you do that for everything, your rules are going to be three times the size, right? And no one's going to be able to get through them. So, there's always a tension between redundancy and brevity. Inefficiency.

Key to this tension is the designer's ability to understand and communicate which rules are most fundamental and important to determine what bears repeating. Playtesting prototype games and doing usability tests on rules documents aids designers in determining which rules may need some repetition, if they are often overlooked by players, for example.

Other designers echoed the importance Zimmerman placed on strategic and judicious repetition of important pieces of information in a game's rulebook. Alan Gerding observed that different players will come with varying assumptions on where a rule "should" be located in the rulebook; by having overlap where the same rule is explained in multiple areas of the rulebook, you increase the chances that the player will find the rule they are looking for on their first try. Of course, too much repetition will make first-time readers more likely to skim the rules if they start to feel as though they already know the repeated material: at that point, the designer runs the risk of a player glossing over an important piece of information or distinction while trying to skip over repeated material. Conor McGoey takes the opposite approach, by trying to excise as much repetition from the rulebook as possible and instead trying to make his rules as "logical, concise as possible." To facilitate players looking for a specific rule, McGoey takes great care to make sure the headings he uses to organize the rulebook are descriptive and specific enough that players will have an easier time inferring exactly where the key piece of information they are looking for is located.

Zimmerman also notes a key tension in the design of a rulebook: the dual nature of the document as a "how to play" guide and a reference document for experienced players. Organizing a rulebook entirely around a narrative explanation of how to play the game can make looking up specific rules difficult, as narrative explanations tend to start from big, basic concepts and drill down into specific mechanics as details are needed. This is great for keeping information organized in one's head when first learning to play, but it often means

that details about certain mechanics will be scattered throughout the rulebook—making it preeminently difficult to find the exact passage that will help clear up a rules question later on. On the opposite side of the spectrum, a rules reference document, organized by mechanic and keyword makes it easy to find the exact passage one is looking for when a rules question comes up, but trying to envision how those different mechanics interact with each other for the first time can be overwhelming and confusing. Many designers create a hybrid document that tries to walk the line between these two use cases by using good visual organization and headings to clearly delineate sections of the rulebook at a glance to aid in easy skimming. It is not uncommon to see rulebooks that are built more toward the "learn to play" layout that also include a rules summary/glossary on the back of the document, with all of the vital basic information laid out on one sheet and page numbers to direct readers to the relevant part of the rulebook for that specific mechanic or phase of the game. Isaac Childres' *Gloomhaven* rulebook achieves this with a visual guide to the game's iconography that also contains page references for more detailed information (Figure 3).

Figure 3. *Gloomhaven*'s Quick Guide helps readers locate the parts of the rulebook that give details on the iconography and components of the game.

Other game designers and publishers have started to embrace the fact that rulebooks have two very different use cases and actually produce separate rules documents for each one. Cole Wehrle's 2018 woodland wargame, *Root*, actually includes three separate pieces of

instructional documentation inside the box: “The Law of Root,” “How to Play,” and “Sample Turns.” “The Law of Root” is a full accounting of all of the rules and mechanics in *Root*, organized like a classic war game manual with headings such as “Golden Rules,” “Key Terms and Concepts,” and “Key Actions.” It also includes a section for each of the four asymmetrically-designed factions within the game, so players with specific questions about their faction can easily find the places where the mechanics of that faction might conflict with the general game rules and mechanics. “The Law of Root” is heavily structured in its organization and uses decimal-numbered headings to keep everything in place.

The other included rulebook for *Root*, the “How to Play” guide, takes a more narrative and visual approach to teaching the rules of the game. This book is structured in such a way that one could conceivably read the rulebook from cover to cover aloud in order to teach the game. Explanations of mechanics are shortened for brevity and this rulebook features far more diagrams and iconography to enhance its textual descriptions. The added illustrations and relaxed layout makes the “How to Play” manual preeminently more accessible and less intimidating to new players, and the organization is structured to move players through the rules from setup to game end.

Additionally, a single page (front and back) is also included in the box which narrates an example first two turns in the game, with each player’s moves explained in detail. Wehrle noted that in the October 2019 reprinting of the game, this example play document will be expanded out to cover more turns and will have about 20 pages of content. He described the design of this new example booklet as being based off of the Golden Books children’s book format. An expanded “sample turn” document gives the designers more space to cover odd edge cases that commonly come up during the course of play and gives them more space for more detailed diagrams than were included on the two-page document present in earlier versions. The “Golden Book” aesthetic is also a helpful way for the designers to communicate the accessibility of the document by tying it to a familiar format meant for children. While Wehrle does not envision many players using *only* the sample play document to learn from, he does hope that it makes the game more accessible to new players or players who do not have as much experience with war games.

While *Root* was easily the most-cited example of a split rulebook in interviews with game designers, the board game design community is starting to recognize the benefits of breaking up rulebooks for ease of reading. Conor McGoey recounts how the first printing of *Summit* combined cooperative and competitive play rules into the same rulebook: “when I first created the game, I believe in my mind that the game shares 75%-80% of the mechanics

whether you're playing competitive or cooperative…[Players] don't care if information is repeated." McGoey's impulse to combine cooperative and competitive play rules into one rulebook makes sense from a production cost efficiency perspective: if 70-80% of the rules are the same between game modes, it hardly makes sense to incur the added cost of a separate twelve-page rulebook. However, after receiving feedback from the board game player community and influential game reviewer Tom Vassel of *Dice Tower*, McGoey decided to split the rulebook in two for the second printing: now the game comes with a full rulebook for cooperative play and a full rulebook for competitive play. While printing an entirely separate rulebook does add to production costs, McGoey felt it a necessary change to make sure learning his game was more accessible to players. By splitting the rulebook, McGoey also freed up extra space in the 12-page document to include more examples to help clarify rules that were giving players some difficulty.

Headings, Keywords, and Other Organizing Design Elements

While more designers are starting to gravitate towards split "Learn to Play" and "Rules Index" documents, there are other ways to facilitate the accessibility of information in a singular rulebook that attends to the dual nature of its use. Designers stressed the importance of a clear organizational and visual-hierarchal structure of rulebooks that facilitate readers' chunking of information and ability to scan the document. Headings and sub-headings that are typographically styled in a way that stands out to the reader was commonly cited as best practice. Calling out keywords with unique typographic markers is also helpful for players skimming the document for clarification on how a specific mechanic functions. Alan Gerding remarked specifically on visual markers and their ability to "mentally hyperlink" sections of the rulebook together: "it's important to consistently call out your key words in something like bold or a different color so that there is a visual indicator that this is a special object that I can commonly reference throughout." Applying typographic markers to keywords or important rules signals two very important things to readers: when reading a rulebook for the first time, it signals to the reader that a keyword or concept will be an important element to keep in mind moving forward, and it facilitates locating relevant passages of the rulebook when players return to handle a rules clarification or when players need to refresh their memories of how a certain game mechanic works.

Consistency is also incredibly important in the design of a rules manual, especially when it comes to organization and terminology. While using the exact same phrasing throughout a rulebook does run the risk of making it sound repetitive, it ultimately increases the likelihood that one can find the specific piece of information that they are hunting for when they reference the rulebook during play. Curt Covert related the importance of making sure any flowcharts or other visual aids reflect the terminology and organization used for section headings and keywords throughout the rulebook. Readers tend to gravitate toward visual aids when skimming a rulebook, as they take less time to parse than dense paragraphs of text; using the same phrasing in a visual aid as one does in the written portions of the rulebook gives readers key terms to search for to find more detailed passages that may address their question. This is doubly-true if a reader is using a digital copy of the rulebook, where text queries can highlight every usage of a keyword or phrase.

Document layout is another place where board game designers direct their attention when it comes to the usability of their rules documents. Two designers specifically referenced the efficacy of the two-column document layout for board game rulebooks and the effect it has on readability. Conor McGoey highlighted manual designs that offer a second "summary" column as being an elegant solution that accounts for players needing to return to the rulebook for specific details on setup or turn order. A summary column provides readers with a short sentence or two that describes the most important pieces of information from the longer-form full instruction set positioned horizontally adjacent to it. There are a number of use-cases for a column for truncated rule details:

- provides first-time rulebook readers with a way to skim the rules and get an abstract idea of how the game functions
- acts as an outline for structuring verbal instructions to fellow players who are learning the game for the first time
- works alongside headings/subheadings to make specific pieces of information easier to find for mid-game rules references/rulings
- increases visibility of numerical values that may be more difficult to memorize, such as how many cards one draws at the beginning of a game or how many tokens one receives at the beginning of every turn
- enables players to quickly review the rules of a game that they have not played played it recently or have not played it in a long time

While any of these use-cases can certainly be accomplished by using callout boxes or other visual design cues, the consistency of the summary column reduces the likelihood of important information being left out as an oversight or due to lack of space.

The biggest material restriction to the length of a board game manual ultimately comes down to manufacturing processes and costs. The printing process demands that rulebooks always have a number of pages divisible by four, as each double-sided print sheet is folded in half and collated with the rest of the folded print sheets to create the final deliverable product. Each printed page represents additional costs to manufacturing and assembly, which incentivizes board game designers to err on the side of brevity in their rulebooks. Curt Covert described his struggle with working within these manufacturing restrictions in the event that his rules are too long or too short by half a page: "Half page short is easy. I can create a little art on the back cover or something. Half page too long and I start sacrificing cover art." Keith Matejka noted that he always leaves extra room for decorative art in his rulebooks, especially if he is anticipating an immediate or eventual international release of the game; if the rules translation ends up running longer than the English version (as it often does for German rule translations, for example), the graphic designer can always remove the decorative art rather than worry about reducing font size or adding another four pages to the rulebook to accommodate lengthier rule descriptions. Though Matejka was the only designer interviewed who noted this particular consideration, it illuminates one of the ways in which seemingly decorative features of the manual are used to attend to the physical limitations of manufacturing.

Striking the Right Tone

Board game designers frequently brought up the tone of their instructions as an important consideration to the usability of the document. Board game rules manuals are not particularly known for being the most interesting or engaging reading material for the bulk of board game players, and the dull manuals from classic Milton Bradley and Hasbro family games that are most familiar to Americans do not exactly help this reputation. Classic war-game instruction manuals that formed the initial template for family board game manuals tend to be long, dry, and strictly organized, with all headings, sub-headings, and paragraphs enumerated for easy referral. And while the level of detail and no-frills tone does make for a comprehensive ruleset that can expertly account for edge cases, reading one of these rulebooks is a herculean task for someone trying to teach themselves the game. Trading card

games similarly have heavily-structured but incredibly dry rules manuals: the *Magic: The Gathering* comprehensive rulebook used by judges for tournament and competitive play, for example, is a 242-page tome that shares more in common with law text than it does with modern board game manuals. While incredibly-detailed and organized rules are necessary for structured, competitive play, most board games do not require something quite so extreme. On the other hand, rulebooks that are too vague or incorporate too much flavor text run the risk of creating too many ambiguities during play or making the rulebook difficult to consult mid-game. A balance between these two extreme poles is necessary to make an accessible and user-friendly rulebook.

Many of the designers that I interviewed stressed the importance of making the rulebook an engaging experience for the reader. Generally speaking, board game play groups tend to have one person in charge of reading the rules and explaining the game to the rest of the group—sometimes there is a singular person who takes up this task, else the person who purchased the game is expected to fill this role. It is exceedingly rare for everyone at the table to have read the rulebook for a game. The rulebook therefore represents a major hurdle that must be cleared before a game is even brought to the table. Alan Gerding, designer of popular party games such as *Two Rooms and a Boom*, noted that his biggest pet peeve while reading a rulebook is when "it starts reading like stereo instructions instead of making it a fun experience;" by making the rulebook text more conversational and full of themed language (often referred to as "flavor"), it helps the reader get immersed in the game's theme:

> And because you have the primary consumer who buys the game, who traditionally is the one who learns the game, who then traditionally is the person who teaches everyone else the game. And instead of putting the onus all on the primary consumer to immerse the players, you should immerse the primary consumers. So right away in the first section where it says "overview," that's your time to have flavor and be unique and have this voice.

This philosophy even extends to what they call the rulebook for each game—sometimes the rulebook is called a "player handbook" or "survival guide" or "rules and regulations." The language used in the rulebook should still be clear and concise, but injecting a bit of humor or sarcasm or theme into the language of the rulebook can be a great way to keep readers engaged through to the end.

Combining the need for clear and easy to understand technical documentation while adding a bit of creative language can be a difficult needle to thread, however. Lindsey Rode noted that a rulebook that is fun for the reader to engage with is an incredibly difficult balancing act that represents the "highest level of rulebook writing." By trying to inject

humor into the rulebook, the writer runs the risk of turning off readers who do not share the same sense of humor as the designer. Furthermore, too much conversational tone can act as a hinderance to readers if it is distracting or if humorous/conversational content is not reigned in. Curt Covert noted that "conversational is fun but wading through that can be a real slog if you're looking for a single piece of information." While reading pithy rules copy may be more engaging when reading the rulebook for the first time, it can make finding a particularly relevant passage more difficult when conducting a rules check mid-game. Of course, this can be mitigated somewhat by judicious use of headings and subheadings to create visual hierarchy and by applying emphasis via bolding keywords and/or phrases.

Whether a designer drafts their manual early on in the design process or after the game has been through significant development already, at some point it must be tested alongside the game. While early playtesting can certainly be conducted with the designer or a surrogate explaining the game to players, it is imperative that the manual be assessed for usability before the game is put into production—after all, there is no way for the designer to come teach the game to everyone who wants to play it. In the next chapter, we will explore in more detail how and when game designers playtest their games and game manuals in progress.

CHAPTER 5: PROTOTYPE TESTING DATA COLLECTION

From the initial spark of an idea for a game to the moment that game gets sent off to the printers, game designers are constantly testing, tweaking, and iterating on its design. Though the who's and how's of playtesting shifts throughout the game design process, it is a constant part of the iterative design loop that happens concurrently with experiments and improvements to the game. Designers described playtesting as one of the more time-consuming and slow-paced part of their design process. Early changes to the game result in big leaps forward in balance and sophistication of the game's mechanics and theme, but by the time designers start playtesting, the changes become slower, more incremental. In this chapter, we will explore the different approaches to playtesting that designers take, from the sophistication of their prototypes to whom they recruit as playtesters to the types and quality of playtesting data they collect.

Polished Prototypes vs. Basic Prototypes

In the early stages of prototype development, board game designers tend to work through their design concepts mostly solo before seeking feedback and guidance from other designers and players. Translating a game concept into a working prototype that represents the core gameplay loop is a time-intensive task, even when designers are working with the most basic of materials (e.g., notecards, markers, coins, etc.). There were high levels of variance in designer responses when they were asked when they brought playtesters into the design process. Some designers recruit close friends and family in the very earliest stages of prototype testing, when the core gameplay loop is still being tweaked; others wait until the game is nearly completed before letting playtesters try it out for the first time. There was also a good deal of variance on the quality/sophistication of board game prototype components used during initial playtesting. This section will elaborate on the benefits and drawbacks of these varied approaches.

One approach to prototype testing is to get players' hands on the game as soon as possible in the design process to get feedback on what parts of the core gameplay loop are engaging and which parts will disengage players. One of the most important lessons Keith Matejka learned as he started making board games was to "start playtesting as soon as you can." When a game design resides solely in the mind of its creator, it is difficult to see what aspects of the game are being glossed over, and prototyping brings those lacunae in the

design into the spotlight. Further, early prototyping can help designers determine if the game's design is actually *fun:* there are plenty of concepts that sound fantastic and engaging on paper but are boring and disengaging in practice. To this end, some designers will refrain from trying to flesh out the entire game system for early testing and will instead create a stripped-down version that only features the few core mechanics that define the game, without the extra side mechanics that complicate it. Cole Wehrle tends to start with tests of what he calls "proof of concept games" that are stripped down versions of the larger game that he is trying to create. He creates a 20-minute lite version of the game for players to test, and it is not uncommon for him to stop a playtest after only a few turns if it is clear that the game is not working: "I try to respect my playtesters' time and so if I already know something is broken or if I can do the work of figuring out how broken it is, I'll just do it myself." If he understands in the moment what needs to be tweaked, he resets the game after explaining what will change and altering components as needed; if the game breaks down but requires further examination, he ends the playtesting session to work on fixing the parts of the system that are not functioning as intended. Necessarily, components for this kind of playtesting are minimalistic or barebones to facilitate this kind of rapid prototyping and testing.

This rapid, rough prototyping approach is shared among many experienced designers. When Lindsey Rode was learning from her design mentors, she noticed that all of their early design components were incredibly rough around the edges:

> One of the things that my mentor taught me…they didn't teach me directly, but they all had really crappy looking prototypes, like garbage looking prototypes thrown together. So I started to think that really good game designers never had good looking prototypes. So now I purposely make my prototypes look extra bad just because that seems to be what the pros do.

One of the distinct benefits of this approach is that it forces players to concentrate on the game feel and mechanics without the distractions that come with an aesthetically-pleasing prototype. Rapid, rough prototypes also reduces the possibility that the designer gets "locked in" to certain design decisions early in the process, as the lesser time and effort commitment compared to producing polished prototypes means designers are less likely to fall into the Sunk Cost Fallacy that could make them more resistant to large, fundamental changes in the game. The abstract nature of the rough prototype also leaves more room for brainstorming other thematic interpretations of the game. However, the rough prototyping approach is requires more experienced playtesters and fellow game designers, as less experienced players often find it particularly difficult to move past the physical presentation of the game and have

a harder time concentrating on the mechanics and game feel. Rough prototypes also make it more difficult to determine if the theme for the game is helping players understand how their decisions affect the game's outcome, as it is more difficult to convey theme without the aid of game art. Because early prototype testing is focused more heavily on mechanics, it lends itself well to designers who gravitate toward developing Eurogames, which are often far more focused on creating an interesting system of interacting mechanics than an experience that is theme-driven.

An alternative approach sees designers holding off on playtesting until the game has received a graphic treatment of some sort. Even on the early playable prototypes, Conor McGoey makes sure there is at least art and graphic design on the cards and components he is testing; most of the time, the art is just placeholder images found on the internet, but the graphic treatment is "part of the user experience" as McGoey conceives of it. He later admits that on his first game in particular he "went off the deep end" with the effort and sophistication of his prototype components and that since then, he has tried to keep his prototypes a lot simpler. McGoey further notes that compared to the other designers at a prototype game night he attended during development of his first game, his prototype was "over the top…and look[ed] finished and stylized compared to a lot of people who are just testing…paper and pen." Despite the extra time and effort spent on giving a graphic treatment to early prototypes, there are some significant benefits to this approach: games for which atmosphere and tone are important to the gameplay experience benefit from early testing to make sure the thematic visual elements provide a sense of immersion to players. The layout on cards and other components can also be tested early to ensure that they convey the intended information to players and to have more time to refine iconography and text formatting.

For games that rely heavily on theme—and especially for games aimed at a more "casual board game" audience—having a polished early prototype is particularly important in prototype testing. Alan Gerding, for example, uses online design and printing tools like GameCrafter to automate importing card text from a spreadsheet and applying it to the card designs for rapid-prototyping polished prototypes. Gerding notes the importance of having a solid early prototype in simple terms: "one thing I've learned unfortunately is that ugly games, people don't want to play as much, especially our types of games that are social because the art can sell a game and motivate people to keep on playing it." Gerding referenced a specific card game by another designer that recently had incredible success on Kickstarter, and noted that the game itself was not all that interesting but people loved it for

its silly art and hilarious theme. The visual elements of the game were enough for a large audience to look past the game's relative lack of depth. Gerding believes that it is important for players to get a sense for how the final product will look in order to properly test the game, especially considering he worries that playtesters will dislike the game on the basis of aesthetics alone.

The Stages of Playtesting and Playtester Selection

Just as the sophistication of designers' prototypes shift multiple times during the development process, so too does the audience of playtesters used for gathering feedback on in-progress games. Often, the first group of playtesters consulted on early prototypes are friends and family of the designer. Early prototype games are often stripped down, simplified versions of what the more complex final game will be, and designers at this point in the process are interested in testing whether the core gameplay loop works and whether the standard actions taken on a player's turn are fun and engaging. Though friends and family are not always board game enthusiasts, these initial playtests can be a good litmus test for how complex/accessible the game is to a general audience. Ben Harkins uses "friends and family who [he] wouldn't say are in the hobby but are interested in board games. That's really telling for like how intimidating or usable or confusing is this thing to someone who's not used to it or not invested versus very motivated playtesters who volunteer." Gathering feedback from players who better represent a more general audience for games and not just the enthusiastic, passionate gamers who volunteer to playtest can reveal important aspects of the final audience for the game that determines how the game will develop in future iterations. Alan Gerding specifies that friends and family playtesters are useful because they represent "your biggest fans. And if they don't like it," it is a good sign that the design needs a lot more work.

Designers also seek feedback from other game designers in their network of peers during early prototype testing, which comes with its own distinct benefits and drawbacks. Fellow game designers will have a much easier time looking past the aesthetics of a rough prototype or lack of theme and concentrate on how the mechanics are interacting with each other and can keep an eye out for degenerate strategies that make the game less fun for the other players (such as hoarding resources to prevent other players from advancing their strategies or creating situations where the winner can indefinitely maintain their lead once they get ahead). "No one can break your game like another game designer," Lindsey Rode

observed, noting that this provides a distinct benefit over using friends and family who are not as used to thinking about degenerate strategies. But as useful as other designers are for finding fatal flaws in early designs, their feedback is not without drawbacks. Ben Harkins notes that sometimes the feedback that one gets from other designers can be *too* informed: "game designers will—they won't tell you what's wrong, they'll tell you how to fix it, and that's often harder to wade through than it is people who just say like 'I didn't understand this.'" Designers' expertise ironically makes it more difficult for them to diagnose the problem, because they are more solutions-focused. And while getting advice from other designers on how to fix an issue *can* be helpful, Harkins notes that "they've played your game once and they've thought about it for 45 minutes, not three months," so their well-meaning suggestions for quick fixes can be less useful than if they were to simply define the problem in the first place.

There is no magic number of playtests that need to happen during the initial prototype testing phase, and how much time is spent playtesting with friends/family/other designers depends largely on the complexity of the game and how much solo development happened before the designer started playtesting. When a game is somewhere between 80%-95% of the way to its final form, designers start running playtests with dedicated playtesting groups. For this stage of the prototype testing process, playtesters are recruited from friendly local game stores (FLGS), Internet forums, and at board game conventions such as Origins, GenCon, and Penny Arcade Expo Unplugged. Designers expressed a preference for conducting these playtesting sessions in-person, where they can directly observe the players and take notes, but depending on the local availability of players, designers may have to rely more on remote playtesting sessions.

Generally speaking, these smaller groups of playtesters will play the game many times with an eye toward testing the balance and depth of the game: it is during this stage of playtesting that players try out different strategies to ensure that no one path to victory is significantly more likely to end in victory. During this point of the testing process, designers are more likely to verbally explain the rules of the game (usually from a standardized script) rather than have players attempt to learn the game from the rulebook. When the game is nearing completion, the designer recruits a new, larger pool of playtesters who only play the game once or twice; it is during this stage that the designer is mostly hands-off with instruction and players learn the game by reading the prototype rulebook. Reusing the same playtesters during this stage of the process sees diminishing returns, as the designer is more interested in how well the game components and rulebook communicate the rules to their

players. Chris O'Neal eloquently describes these two stages of prototype testing as "A few play a lot; a lot play a few."

Playtester selection for these two distinct phases of testing differed significantly among the designers based on the local availability of players and how many games the designer has under their belts. FLGS and local board game clubs/groups were commonly used by designers looking for immediate feedback on their prototypes. Particularly observant or enthusiastic playtesters are more likely to be used for future game prototype testing, while players who are disengaged or get burned out from playing too much are rotated out. Experienced designers had greater access to pools of playtesters from online forums such as BoardGameGeek or those that are recruited from gaming conventions, which allow them to more easily run remote playtesting sessions: for example, Alan Gerding recruits from the listeners of his board game design podcast and uses a small-print game manufacturing website, The Game Crafter, to print and distribute the physical prototype. As compensation for their labor, Gerding sends playtesters a copy of the final product when it is ready for commercial printing. Designers without the reach afforded by a dedicated fanbase will sometimes rely upon game publishers/developers to run prototype testing with their pre-established network of players. Gaming conventions tend to be the easiest way to recruit a large number of dedicated, passionate players who are interested in playing a game before anyone else in their gaming group has had a chance to try it.

When asked about specific qualities that they look for in their playtesters, designers were non-specific beyond looking for participants who are passionate about board games; mostly they were just thankful that players are willing to take the time to play their games and give feedback. "It ends up being kind of a take who you can get scenario," Ben Harkins observed; board game profit margins are fairly thin, so there is not a lot of room for compensating playtesters beyond free copies of the final product or feeding participants. That being said, there were some preferred qualities that certain playtesters exhibited that designers felt were invaluable. Conor McGoey noted that he had two playtesters in particular that he frequently called upon for feedback, as the volume and nature of their feedback often closely aligned with McGoey's vision for refining the game: "I have one of my testers…he's kind of a numbers guy. So he'll go into it and…just kind of pulls things apart…And I would say 80% of the time, what he's wrote is right." He also observed that players of the popular trading card game, *Magic: The Gathering* tend to be fantastic playtesters for their ability to seek out loopholes and degenerate strategies within a ruleset, as *Magic* is a game with incredibly complex rules, and high-level competitive play requires exploiting the small

intricacies of card text and rule interactions. “No one tests your cards like frickin’ *Magic* players,” McGoey said, with a tone of simultaneous admiration and frustration. Mostly, though, designers are just looking for people who are gamers at heart: “I try to have it be as broad-based and differentiated as I possibly can. And therefore, it’s random. Whoever wants to sit down and play,” Curt Covert admitted.

On the subject of testing for accessibility, designers often said that they did not have the luxury of being able to recruit specific playtesters with disabilities—they are in a “take what you can get” situation. Specifically recruiting playtesters with disabilities is difficult, as asking about a player’s potential disabilities can be a sensitive subject. When playtesters volunteer their disability status, it is not uncommon for designers to reach out to that playtesters for help on future projects to get their insight on what could be changed to make the game more accessible. Colorblindness was universally indicated as the accessibility concern foremost on their minds when testing a game. Alan Gerding noted the importance of colorblind compatibility, and that “you can always tell a new designer if they have red and green players…Let’s just say that you’re going to get your ass handed to you immediately, even by people that aren’t colorblind.” If colorblind playtesters are not immediately available, designers may reach out to specific social media groups that help designers of all kinds assess the colorblind compatibility of their designs by uploading pictures of game assets for the group to comment on. There are also a number of online tools that will simulate colorblindness for a given image or color palette that can further assist designers in assessing the colorblind accessibility of their game when feedback from humans is not available, such as Paletton and accessibility features in the Adobe Creative Suite.

It is perhaps not too surprising that these designers only attended to the bare minimum expected accessibility concerns for their games. Projects like *Meeple Like Us* that assess the accessibility of popular board games make it abundantly clear that the board game industry has a long way to go in ensuring that the games they put out to market are playable by the widest possible population of players. Even something as supposedly standard as red/green colorblind compatibility is not universally considered, as a significant minority of the games reviewed by *Meeple* receive low scores on this metric. While many of the designers did note that they have colorblind playtesters on call and are familiar with digital tools to assess colorblind compatibility, their approach to making games accessible should start at the earliest point in the design process possible. By incorporating people with various disabilities in the early stages of the design process, designers are in a much better position to make tweaks to the initial game concept in ways that will not only make the game more accessible

in terms of its components but could even innovate on the mechanics in a way that creates a whole new experience. *Nyctophobia*, for example, is a board game where players wear blackout glasses so they cannot see the board, and must navigate their player token through a maze of 3D trees on the game board by touch alone. The designer of this game, Catherine Stippel, created the game with the express purpose of playing with her uncle, who is blind. *Nyctophobia* has been widely praised for its innovative design and has seen several different versions released to the delight of sighted players and those with visual accessibility concerns alike.

Data Collection & Filtering Feedback

Game designers have their work cut out for them when it comes to collecting data during their playtesting sessions: not only are they interested in making sure the game mechanics come together to create a balanced, interesting experience, but they also need to track the engagement of the players, both on their turn and while they wait for others to take theirs. One could design the most interesting combination of mechanics with depth, nuance, perfect balance, but if players cannot keep all the rules in their heads as they play or if there is too much downtime between turns, the game is not likely to leave the shelf after the initial play through. In observing their playtesting sessions, designers must attend not only to the functioning of the game itself but, just as important, to the affective responses of the players. It is worth admitting that designers' responses to questions regarding data gathering and analysis defied my expectations. For one, I was anticipating much more quantitative data collection, such as using pre-/post-play questionnaires, or meticulous tracking of what strategies tended to lead to victories to make sure the game was balanced. I was pleasantly surprised that these expectations were nearly universally incorrect: designers were not only much more likely to go with their gut reactions rather than use quantitative measures, but the bulk of their notes tended to focus on affective responses to the game rather than mechanical issues. Board game UX testing tended to be much more interested in how people *felt* as they played the game rather than creating a combination of mechanics to create a perfectly-balanced game.

Designers had a stated preference for conducting in-person, face-to-face playtests of their game and tended to avoid remote playtesting where they could not directly observe their participant players. Ben Harkins noted that one particular benefit of being in the room with playtesters is the ability to guide the post-play conversation:

> I think that I find the best stuff comes from a guided conversation and I only really guide the conversation in the sense of like, I feel like once the group kind of fixates on one thing. I've often seen, you can have like a very lengthy discussion around one particular aspect. When it's like we know that it's broken or we know that it's imbalanced, like discussing it further, it doesn't benefit much, we need to move on to a different topic. But often people kind of cling to the one thing that stuck out the most and then want to really dig in. So in terms of guiding conversation, I found that like getting people off of local minima in a sense is the most important aspect of guiding that of the guided conversation.

Other designers have similar observations about the feedback that playtesters tend to give: often they will fixate on one thing that they perceive as broken and find it difficult to move on from that point, even if it was the result of bad luck or a strategic mistake on their part. Being able to observe the game as it plays out makes it easier to discern whether a piece of feedback is relevant to the overall design of the game and allows the designer to gently guide the conversation to a more fruitful subject.

During the playtest, designers tend to sit with the table and silently take notes on the experience of the players as they play. Outside of answering rules questions, the designers try not to interact with the players as they make their way through the game. While designers will sometimes record very basic information about who won the game, what combinations of abilities tend to lead to victory, and other game-state data, the bulk of their notes are based on the affective responses of the players, such as:

1. Are players leaning forward in their chair, engaged with what is happening, or are they leaning back, checking their phone?
2. What moments elicit strong emotional reactions from players, such as cheers of joy, disappointment in defeat, moments of intrigue, etc.?
3. Are players paying attention to their opponents' actions or are they disengaged on all turns except their own?
4. Are there any points in the game where one player's victory is inevitable and everyone else checks out?

Chris O'Neal placed the ratio of open-ended note-taking to mathematical/mechanical balance notes at 9:1, with the vast majority of the notes being about players' affective responses. In their playtesting sessions, designers are less interested in testing to make sure their game is perfectly balanced and are more interested in players' perception that their actions are able to effect material change to the game state and that they are in control of their own destiny, as it

were. To this end, O'Neal laid out his philosophy on the importance of players feeling like they have agency in a game:

> A game is not just the stuff on the table. The game is also what's happening in the people's heads and what the people are doing. So the question of agency and goal and your ability to act is probably the most important one from our point of view, particularly because we're trying to design an experience that goes beyond the mechanics. All of our games are meant to leave you with a memorable experience. And we don't want that memory to be "I was helpless." And you know, "I couldn't get done what I wanted to get done."

The emphasis on creating an *experience* is an important one; while there is some joy to be found in moving little bits about the board and playing cards from your hand, the draw of board games is the shared experience and larger narrative that is collectively created through play. The stories people tell about the games they play are far more likely to encourage others to put in the effort to learn a new game than a sterile rundown of all of the mechanics that comprise it.

But what are designers to do when they do not have access to enough local playtesters? If the designer of the game is not also the publisher, said publisher may conduct playtesting on behalf of the designer with their own established group of local players; in this case, the publisher will run playtesting sessions, gather data, and deliver the findings to the designer so they can move forward with revisions. Designers will also reach out to forum-based groups for remote playtesting by making print-and-play (PnP) files available for forum-goers to make their own copy of the prototype game to play with their local game groups and report back with their observations. These observations can take the form of a standardized questionnaire that the designer packages with the PnP files, written play reports, or video recordings (though the latter is rarely used). Lindsey Rode conducted much of the playtesting for her game *Countdown: Action Edition* via forum, where each week she would provide a new PnP file in a new thread and ask her playtesters to focus on different aspects of the game such as finding card combos that break the game or examining abilities to see if any of them feel overpowered compared to the rest; Rode described this as trying to "cheat with the abilities without breaking the rules." These forum discussion threads are also used to discuss the balance of the game with each new set of changes. Likewise, Alan Gerding makes their prototype files available to the public and advertises their availability on his podcast. Packaged with those files is a standardized questionnaire with just a few specific questions regarding players' experience with the game. He notes that the most important question on that form is "What is the maximum amount that you would pay for this game?" Gerding

believes this question is much more helpful than questions like “Is this game fun?” because coming up with a dollar amount one would pay for the game indirectly addresses the “fun” factor—after all, who would spend money on a game that is not fun? Moreover, it gives him a better idea of how to scale the quality of the game components: “any game we come out with, there’s so many different levels we can do” in terms of the quality and materials of the components that come in the box.

Though designers differ quite significantly in their approaches to the playtesting process, one of the most consistent refrains is that—more than anything else—designers are testing their games for *fun*. After all, if playtesters are not enjoying themselves when they are being paid to play the game, there is little hope that players will want to pay for the experience. However, trying to measure “fun” in any kind of concrete way is difficult, as it means different things to different players. This nebulous, affective concept can manifest itself in any number of ways, and it is up to the designer to read their players’ reactions and intuit whether their game is facilitating an enjoyable time for its audience. It is a messy process, gauging fun, and it is telling that so many designers describe their assessment of players’ mood as being something they *feel* rather than intellectualize; it is a gut reaction. And while it may take some time for a new designer to build up the necessary intuition, they can take some solace in knowing that there does not seem to be any one “right” way to begin playtesting. Instead, new designers should seek to get their early concept games on the table as quickly as possible—not only to see if their core gameplay loop even works in the first place, but to start building experience gauging the reactions of their fellow players.

CHAPTER 6: IMPORTANT LESSONS FROM GAME DESIGNERS

There is much that can be learned from the board game design community's incredible dedication to producing beautiful and player-friendly documentation for their games. Nearly universally, participant designers expressed a dual frustration with and admiration for the instructions that breathe life into the games that they create and play. Reading and memorizing the rules to a new game is an essential component to the success of any game night, and the act of teaching a game to others is a labor of love that brings people together for a powerfully communal experience. Unfortunately, it takes a special kind of passion for games to volunteer to be the rules czar for your gaming group, because the task of reading, memorizing, and then teaching rules is a time and labor-intensive practice. It is my hope that this examination of the board game design community's practices can help demystify the process of writing solid, usable game documentation so others can help share their passion for games with others more easily.

Insights for the Board Game Design Community

While board game design guides published in the last three years are giving neophyte designers ever more insight into how to write their manuals and conduct playtesting, the current dearth of resources on these subjects still leaves many gaps in our knowledge. Without access to a mentor who has been in the game publishing business, writing a rulebook for the first time is a daunting task. Fledgling designers can benefit from the incredible detail that the participants of this study went into about the layout and formatting of rulebooks that make them most accessible to newbies and veteran gamers alike.

Very little about the layout of text and images on the page is covered in game design books, which is something that necessitates access to a graphic designer to apply without that prior knowledge. Since graphic designers are usually hired by a publisher, it can be difficult for a designer to do usability testing on their manuals during playtest data collection; considering how competitive and saturated the market is, designers stand a much better chance of getting their games picked up when there is less development that needs to be done on the publisher's side. Designers looking to improve the readability of their rulebooks might choose to adopt a two-column approach to their layout, which allows extra space for hints, tips, reminders of content from previous pages, or summaries of the rules text on the opposite column. It is also helpful to use text formatting to improve the usability of the rulebook:

bolded keywords make searching through the document for relevant rule passages much easier and using consistent formatting for headings and sub-headings can facilitate skimming of the rules. Additionally, using text formatting such as italics or call-out boxes of a particular color when providing examples can allow for readers to either gravitate towards or skip over example text depending on their learning style.

Likely one of the most important insights gained from this study for board game designers is the emerging trend in game documentation to split up the rulebook to account for different learning styles and use-cases. I was surprised and impressed by the number of designers who mentioned Cole Wehrle's *Root* rulebooks (designed by Josh Yearsley), which split the standard rulebook into a heavily-structured rules glossary, a "how to play" guide, and an example turn sheet. Other games have adopted a similar structure for their rules, such as Patrick Leder's *Vast: The Crystal Caverns* and *Vast: The Mysterious Manor*, and James Kniffen's *New Angeles*. While printing and assembling multiple rules documents does cut into the game's bottom line, these rulebooks are preeminently accessible to people of different learning styles. And if the commercial success of these games is any indication, it certainly seems to be worth the extra effort and money. Participant designers often remarked about the challenge of creating a rulebook that accommodates the dual purpose of a teaching and reference document, so new designers might find it easier to instead follow this new trend and compose multiple rulebooks for these distinct purposes.

Understanding the manufacturing process can also guide new designers as they try to manage the length of their rulebooks. Since the printing process requires that manuals be printed on large, double-sided sheets, designers must create rulebooks that are a multiples of four pages in length, including front and back covers. If the designer's budget is tight, insight into these printing restrictions can guide the rules drafting process to aim for a greater efficiency. Leaving extra room in the rulebook for "flavor art" can also be a forward-thinking way of accommodating a potential international release of the game, as it provides space that can be reclaimed by text in the event that the instructions run longer in a different language. On that same note, using easily-identifiable icons alongside keywords in the rulebook reduces the likelihood that text printed on cards, game boards, or other components does not exceed available printing space.

Insofar as playtesting is concerned, the available literature on this topic does provide significantly better insight into the process as compared to manual drafting/design. Still, one of the most useful and interesting observations from this study is how important observing players' affective responses to the game is while gathering data. Most guides on playtesting

focus on how to use playtesting to improve game balance and mechanic design, but these are talked about in the abstract. Slack's *The Board Game Designer's Guide* does go into some detail about watching for affective responses from players, but other books are far more interested in the mechanics of conducting a playtesting session. Interestingly, game design handbooks seem to overemphasize the importance of post-play questionnaires or surveys, which participant designers had mostly discounted as not being able to provide the depth or quality of feedback to be worth the paper they are printed on—which is not to say that they are not used at all, but game design books seem to oversell their importance and undersell the direct observation of the body language, speech, and attentiveness of playtesters.

Insights for the PWTC Community

Much of the designer insights about manual design should feel quite familiar to technical writing scholars and instructors who teach typographic hierarchy, two-column layout white papers, and user experience testing. PWTC scholars will also likely have noted the lack of attentiveness to accessibility outside red/green colorblindness in participant responses, though perhaps such limited considerations will be sadly par for course. It is my hope in future studies to seek out designers who actively incorporate playtesters or design partners with disabilities into the process in the hopes of finding better ways to encourage other designers to think more carefully about accessibility in the future. To this end, Alan Gerding's work with his new game, *Handsy Handsy* is an interesting case study for intentionally making a game more accessible. It started as a party game where players would have to use random hand gestures to facilitate communication with other players; to make the game more immersive, he added an extra rule to the game where players could further challenge by not speaking at all over the course of the game. After some playtesting, it suddenly dawned on him that instead of using random hand gestures, he could instead tweak the game to help teach players American Sign Language instead. He noted that he had a cousin who is deaf and had taken a couple semesters of ASL in college (though he has not kept up with it and is admittedly a bit rusty). As he started tweaking the game, he "started reaching out to some deaf interpreters that [he] had met and they freaked out at it. They're like, this is amazing!" He notes that wherever possible, he tries to make his games more inclusive and accessible—not only to grow the audience for his games, but because the positive press associated with it tends to help the game perform well. It is obvious from talking to other designers that accessibility is more of an afterthought, but perhaps narratives

like this could help encourage more designers to take accessibility more seriously earlier in the design process instead of a box to check at the end of playtesting.

One of the take-aways the PWTC scholars will find interesting is the utility of injecting a bit of levity into technical documentation. While this may, on its face, seem like an unintuitive move, designer participants believed that rulebooks that did not insert some humor or thematic language were far less engaging and therefore risked losing the interest of the reader before they were able to bring the game to the table. Board game manuals are extremely high-stakes pieces of technical documentation in terms of their impact on the economic viability of the game—after all, each time a game is brought to the table, there is a chance that other players will purchase it to play with other friends and family. Ensuring the primary consumer is able to successfully parse the rulebook and share its contents with other players is essential to making sure the game gets played at all. And there is nothing less fun than a thick rulebook that reads like a stereo manual.

There are, of course, challenges in injecting a bit of levity into an otherwise "serious" document. In time-sensitive encounters, we want technical documentation to be as straightforward as possible, and that often means there is no room for creative language. However, when considering situations where the intent of the document is to teach a user a process, (rather than provide a document for sporadic reference), there is much we can learn from the design of board game manuals and their penchant for more creative styles of instruction. In a similar vein, the recent move toward splitting board game rulebooks up into "how to play" and "rules reference" documents is something that is worth emulating. A pedagogical piece of technical writing that describes processes could be paired with the more traditionally sterile reference manual to help cover the dual-uses of manuals in the future. This is a concept that I hope to explore more in the future.

In a similar vein, there is much to be gained by considering the ways in which the theme of a game helps readers keep the rules for a game in their heads as they play. Themes in board games provide a narrative lens through which to view the actions that they are taking, and a game with a well-incorporated theme can establish a coherent logic to the various mechanics the game employs. As a basic example, in chess, the pieces and rules dictating their movement evolved significantly as it migrated its way through different cultures over the course of its history; differences in monarchical systems between cultures ended up having a significant impact on how the game was played, as the game transformed into something more familiar to the people playing it. It may be worth investigating if we can

make more judicious use of metaphor or theme in other technical writing contexts to help readers more efficiently chunk information while committing it to memory.

Finally, board game designers' methods for collecting and analyzing playtest data provides a compelling model for UX testing in other contexts. Primarily, their reduced reliance on questionnaires in favor of direct observation of affective response and reliance on "gut reaction" for experienced designers suggests that a quantitative approach to gathering UX data may not dutifully reflect participant experience. Game designers observed that Q&A during post-play discussion often resulted in less useful data, as playtesters are likely to tell the designer what they think the designer wants to hear. Furthermore, playtesters' suggestions for improving a game tend to suffer from selection bias: players are far more likely to point out when something is overpowered rather than identify something that is underpowered. Similarly, playtesters often offer suggestions for changes to the rules that do not take into account the cascading effects their suggestion might have on the balance of the game, as they are not as familiar as the designer is with the intricacies of the game system. An approach toward UX testing that replicates as closely as possible the conditions in which the end-product will be used and an increased reliance on reading the affective responses of the participants in situ may provide more useful data for designers—even though filtering and interpreting that data may be more difficult.

In "Beckon, Encounter, Experience," Pat Sullivan advocates for UX testing that gives up some control over the testing environment: "Encountering users' experiences without controlling them opens us to hearing/seeing beyond what we expect, beckons us to the new or unexpected, and in opening the events to others' views and actions, we open new ways to experience" (18). When I first imagined how professional board game designers carried out their prototype testing, I assumed a much more sterile, quantitative approach to collecting data for analysis. Coming from a background in competitive card games and video games, game balance was first and foremost on my mind when I thought of what prototype testing would look like. I had imagined designers hunched over a laptop, furiously recording which resources or cards are most used, what strategies ended up giving players and outsized chance at winning, what interactions "broke" the game system. I imagined spreadsheets upon spreadsheets of data pulled from observing what players did in each game. I was pleasantly surprised at how wrong I was. Game designers instead take a much more humanistic approach, focusing more on the reactions of the players, looking for moments of engagement or boredom. It is a vision of playtesting that attends more to the human actors playing the game than the mechanics. And this approach makes much more sense than my

preconceptions did—after all, the game is not the cards or the board or even the rules that govern play. Board games are all about the people at the table.

APPENDIX A. INTERVIEW QUESTIONS

General Questions

- How many games have you designed and published?
- What is the game you're most proud of, and why?
- Tell me about your game design process
- Do you usually work on your game designs alone or with the help of others?

Manual Design Questions

- What resources did you draw upon when writing your first board game manual? How did you learn how to write the genre?
- What support do you draw upon when writing your board game manuals? (Editors, graphic designers, play-testers, etc.)
- Tell me about your process for ensuring your game manuals accurately describe the mechanics of your game. What oversights or blind spots do you tend to notice when revising your game manuals? In other words, are there common issues that tend to crop up in the first few drafts of your game manuals?
- What common mistakes do you see other designers make in regards to their game manuals? If you could advise future designers on best practices to keep in mind when writing their game manuals, what would your advice be?
- Have you ever released your rulebook online (either on a crowdfunding page, BoardGameGeek.com, or other platforms) before the game is released? How does feedback on an online version of the manual feed into your design process (if at all)?
- Have you made changes to a rules manual or wording on a game asset in a subsequent printing of one of your games? If so, how did you decide what to change?

UX Questions

- Tell me about how you test your game designs
- At what point do you reach out to play-testers to try out your game? How do you select play-testers?
- What kind of data do you collect when play-testers try out an iteration of your game?
- After you've collected play-testing data, what do you do to organize/analyze that data into a meaningful format for drafting future iterations of your game?
- How do you choose the people who will play-test your game in progress? Do you play-test your game drafts with multiple different groups?

Design Support from Outside Sources

- How much/what kind of support do you get from publishers when they decide to publish your game? Graphic design support/writing support particularly?
- When publishing through crowdfunding platforms like Kickstarter, who do you reach out to for assistance?

APPENDIX B. SAMPLE INTERVIEW TRANSCRIPT

Speaker 1: 00:00:00 Yeah.

Speaker 2: 00:00:02 And we're live. Okay. Um, all right. So, uh, the questions that I'll be asking, um, are in like three categories. Um, we've got, uh, like general questions, um, then some manual design questions and then some prototype testing questions. So to start us off, um, how many games have you designed and published yourself?

Speaker 1: 00:00:30 Design and published myself? Um, that is a tricky issue. Question. Uh, yeah, so, well, it's hard. Um, it's hard to use my working relationship with Phil, so I would say, uh, games I have done by myself. There were three, uh, vaccinators, second edition, infamous traffic and uh, John Company. And by done myself, I mean I handled the design, the development and I either did the editorial work or outsourced it myself. Um, I've only published one with my own company. Um, and everything I've published is involved more than just me. Right.

Speaker 2: 00:01:19 Um, and of the Games that you've designed you designed, do you have one that you're most proud of?

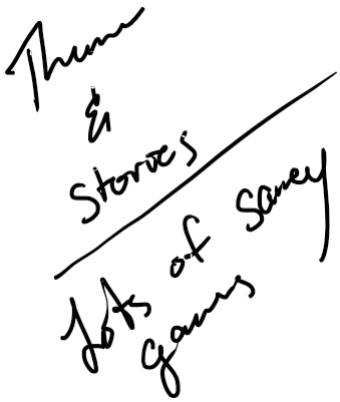
Speaker 1: 00:01:25 Probably the second edition of X. We're, uh, for root, um, I just, I, I had a very clear idea of how I wanted the second edition to look. And the first edition was published in a particular house style that I had, um, disagreements with and in terms of how the game, uh, was presented physically, uh, how the rules are structured, how the design worked a little bit, and I was able to kind of like recenter it in accordance with my own values. Um, whereas with route I

had a lot more latitude and was able to set out like this is how I think the game should work. And then, uh, Patrick and the people leader Games sign off on it and then I just executed on that. Uh, but I route and Pax smear it probably packs, mirrors the is the better example.

Speaker 2: 00:02:15 Okay. Okay. Um, tell me a little bit about your design process. So like

from the moment that you have an idea that you think might work, um, through prototype testing and, and, and to where it's essentially on a store shelf or available for purchase.

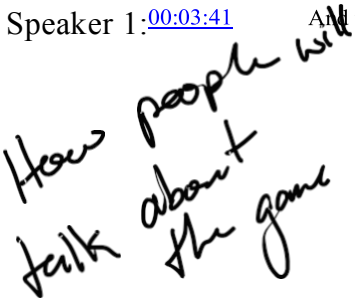
Speaker 1: 00:02:30 Sure. Uh, so I usually, um, I incubate for a really long time and I



usually have kind of two separate, um, conversations that are sort of rolling around in my mind. The first one is a thematic conversation about stories. I don't feel like getting told or periods that are underrepresented. It's a historic game. Um, and I'm just sort of like looking for a neglected narrative. The conversation is mechanical and it's a similar conversation, but it's about what sorts of mechanisms aren't existing, what kinds of, what kinds of design elements and systems are people just not being exposed to. There's a lot of games published every year, but a lot of them sort of look similar because of the way that design gets taught and transmitted and how, like what publishers are looking for a game. So the field tends to be quite conservative. So what will happen is I'll be thinking about these two different strands and then every

once in awhile an offbeat theme will seem to link with an offbeat mechanism.

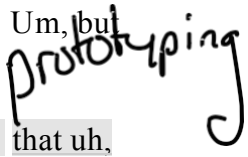
Speaker 1: 00:03:41



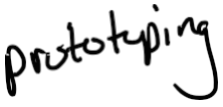
And then I start doing the actual work of design. Um, so the work of design for me starts with a lot of writing and a lot of sketching. And I do some early graphic design and I'm usually, what will happen is I will start by thinking about how I want people to talk about the game when they're not playing the game. This is usually a, an important touchstone for me. Um, or I'll have a sense of like what I can see as the, the whole experience. And then I just try to design a system that I think can deliver that

experience. Um, so I usually then it is much writing a lot of time spent in excel, um, working on weird spreadsheets. These aren't even really functional spreadsheets. They're just sort of like numbers. Uh, like I could share something with you probably, but they wouldn't really mean anything.

Speaker 1: 00:04:35 It would just like a bunch of numbers on a sheet. Um, but so I kind of work through that. Um, and then as soon as I have something that uh, could be played, I try to, um, build, um, w well I usually try to build, um, proof of concept games, which are versions of the main game that are kind of like the minimum viable thing. This, this is, I guess it's coming from a kind of engineering mindset. So I just want to test like the most basic Germa like what's the 20 minute light version of the thing look like or game play loop. Yeah, exactly. What's that loop look like? Um, and so I'll usually build that. Oftentimes I build it in illustrator and uh, cause I don't really need other players. Um, I try to respect my play testers time and so if I already know something is broken or if I can do the work of figuring out how broken it is, I'll just do it myself.



Speaker 1: 00:05:34 Um, so I will usually draw it up in illustrator, um, and, and toy with it. And then I will, I do a lot of my design like digitally or like, you know, just by drawing things out on paper. I try not to actually like put things into layout because I do graphic design. I know what a



time sink that is and I tried to avoid it at all costs because the more, once you start into it, you just can't make it out. Um, so, okay. While that's happening, while I'm kind of doing that, that kind of early sketchy sketching work, I actually do think about graphic design but in a very limited way. Like what does a single card look like, what does the box look like? And I did. And so I'm, I'm actually doing sort of like concept art for the game at the same time and working through that.

Speaker 1: 00:06:21 Um, and then what will happen is eventually I will get to a point where I sort of like need another person to like look at the game. And so what I'll usually do is I have a few play testers, um, that I use for early concept work and they know that when they're playing something really early, um, what I expected them and I just kind of need somebody to sort of like help me find the game and make sure that the things that I think are interesting about it are resonating with at least one other person. So I'll usually invite people over, I will feed them some good food and then I'll take out a game and we'll just kind of play through it. Um, usually there is a victory condition, but the systems are kind of wildly unbalanced. Often my earliest drafts are like negotiation games because, uh, giving players a lot of negotiation latitude will allow a broken system to work for a long time clean negotiation.

Speaker 1: 00:07:20 So like saying like, um, you know, imagine we're playing Puerto Rico and I'm like, well, if you take the craftsmen, I'll give you like $5 in the game. Uh, so just like allowing that kind of exchange to happen and like putting in a lot of auctions and things like that because I don't, from a design stand point, I don't know what anything is valued at yet. Um, and players are all going to be a lot better at assessing that out than I will. So I just kind of like let the game be sort of like loose, almost more of like an RPG style experience. Um, that first test will tell me a lot about like what the shape of the game is, what systems were compelling people. Um, and from there I will usually make another version of the game that is a lot more rigorous and actually is like built to be played in a certain way and I'll be playing that solo a little bit and as soon as I get the sense that it's worth spending a year of my life on, I write the rules

adjusting values / bartering / auctions

prototyping

Speaker 1: 00:08:16 I tried to write the rules pretty early on in my process. So I, I write the first draft of the rules and, um, I use, I don't know, this is a style or anything, it's just kind of the, the thing I've stumbled upon. Um, what I usually do is my first drafts of rules are very technical and very much like usually they're in a, a high, a bolded list because it has hierarchies and they're written a little bit like code. Like it's very, um, these rules are not designed for

1st draft technical

other people to read. They're meant to be complete and they're meant to be like a fair accounting of the game system. Um,

Speaker 3: 00:08:52 so at that point are you, you're, you're, uh, verbalizing the rules to your

Speaker 1: 00:08:56 players then since the, uh, rules are okay. Okay. Yep, Yep. And then,

and then what will happen is, uh, so and that, that those first players are, you know, close friends and family and that kind of stuff. Um, as soon as I have like a viable game that would be recognized as a game, I write rules and then I will continue to play those games. But at this point, I, I'm not showing anybody the rules really. Like they can see them if they'd like, but it's not going to tell anything. And in fact, I have some friends, uh, experienced developers play testers who all share the rules with because they are better at reading a technical rule book. Um, and they can offer feedback just based on that, but in, in place on that, like handing them out. Okay. Um, this, this process is highly iterative at this stage.

Manual drafting

Speaker 1: 00:09:46 And what I'll usually do is cycle through, um, maybe five or six, like iterations, um, until I find one, you know, actually my current design has just entered the eighth iteration and, and these are pretty dramatic and I'm still not really sure like where the heart of the design is. Um, but in the eighth iteration I actually wrote rules for

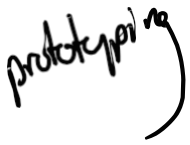
Rewriting rules

tone

the seventh because I thought it might actually be the viable one. And then once I pushed on it, it was, it was bullshit. So I have, I'm scrapping it and moving to another one. And so, but sometimes these kinds of technical rules get rewritten from, from whole cloth, um, which is what's happening now. And then, um, once, once it stabilizes, and this is usually like my method, my, my, a yard stick for the stability of a design is if I, it can survive a test without being changed.

Speaker 1: 00:10:43 It is now ready to like dress those rules up a little bit and to actually

make a prototype file structure that I can easily update in print without having to like, you know, a lot. So I'll do my work in illustrator across several art boards. So I can say like, okay, uh, most of my prototypes are five page prototypes and so I'll just fit everything on those five pages because it's easy to print, cut up. Um, but it's a very, that's a very bad way of laying out a file if you're going to be iterating a hundred times. So eventually around around the stage I will build like the proper InDesign data merge and all the other stuff to actually make the game easy to update and maintain. And then around that time I will do another read through the rules and I will put some helper text in them and basically give them to the place where I can start sharing them.



Speaker 1: 00:11:33 Um, that kicks off like what I tend to think of like, guess formal

development, um, which involves a lot of playing and pushing and then actually doing the content generation where I take the little germ of the proof of concept game and try to get it to fill the shoe shoes of the overall design abstract. Uh, I should've mentioned that too, like in the early stages where I said I was writing a lot, uh, things I write around that time or like design abstracts where I kind of outlined my hopes and thoughts for the design. What I think you can do, I write like a lot, you know, kind of perspect I um, because I just, it's the writing is I do a lot of my thinking on the page. And then also I like to keep a record of how the game kind of grows and shifts.

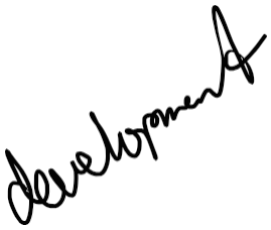
Speaker 1: 00:12:19 Um, and sometimes those records don't mean that much. Um, and

they're kind of like scattered. They're a little more on the journalist side. Um, and other times, um, they can turn into something like a design diary later. So I will then iterate. Um, while I'm iterating, I'm also, um, if the game is good and it's starting to kind of click clear all the really obvious hurdles, I start working more on the graphic design and its presentation and then about halfway through the, through the process. Um, and, and, and I should say to like what this process is because I feel

like this is a place where a lot of designers don't talk about what they mean by like making a game better. Those just like, oh, and then we worked on it a lot until it got better. Um, so I mean, something actually really specific.

Speaker 1: 00:13:07 Um, every game I think can produce every game has a kind of

narrative range in the same way that a singer has like a range. Um, and what I want is for a Gamer I'm working on to have the widest possible narrative range that is still producing interesting games that like makes sense. So I basically, I want like a lot of different things to be able to happen in the game without undermining the games strategic ballast. So like, I'm, I don't want to design flux. I don't want it to just be like, oh, I can't believe that you won because you pulled that card. Everything should make sense in the narrative. Um, but assuming senses made, it should also be possible for a huge variety of different stories to be produced by the game. And one of the things that can happen in development is to fix a problem.



Speaker 1: 00:14:02 You know, it's sort of like you're working on making a robot that can problem jumping, so let's stop him from jumping. Well, he's bad

get narrower because you have to, otherwise your robot's going to fall over. And one thing that I try to do in my design process is to keep things as broad as possible and give players like, I don't want any guardrails to exist. The players have the guard rails.

Um, and so I'm going through the game and sometimes you make a change which fixes a problem that makes the game less

Speaker 1: 00:14:43 And then about halfway through that process, um, what I will do is I

will sit down, um, either with or with the staff of people and we start talking about like, what does this product look like, um, how the game going to present itself. Uh, and big questions about the designer answered here. So some things are going to be impossible to do with the design that I wanted to do and that's too bad. Um, the other question that will get answered is like, how does the rule book look? Who Do you know, who exactly are we making this game for? I mean, I, I'm one of those HACCP designers that the guy can only design for myself. Like I, I, if someone told me like to make a family word game, I couldn't do it really, or it would be bad. Um, and so [inaudible] when it comes to a meeting like this, a lot of these questions are already going to be answered.

Speaker 1: 00:15:34 But um, in answering your questions about presentation, we do a lot

way I was imagining the system growing, uh, the games seem to

growing suggested a pretty traditional war game style rule book.

Um, [inaudible] there were lots of advantages to that style. Uh, I

think it's a pure better way of writing a rule book. Um, from a

philosophical standpoint, uh, it can be awful for teaching it, but

it, when it comes to the expanding the game, maintaining like the

universal set of rules, we wanted something quite technical and

quite precise without a lot of repeating rules and with like a very, a very like aggressive set of self imposed restrictions about like how these rules are going to be written and like what their style is.

Speaker 1: 00:16:30 Uh, and I was quite adamant that I wanted this sort of thing. And of course, that is a good way to have your game just totally get, um, passed over in the marketplace. So, um, to get around this, we, um, we added a second rule book that was like learning to play a guide that is almost comprehensive, um, but that kind of guides players through the game. And then any rule that they, that they don't fully understand, they can get a full accounting of in the actual what we call the law, uh, which is, uh, the more traditional one. And then for players for whom a little learning the play

rubric is too much. We also included a walkthrough, which kind of like, you know, we'll, we'll, we'll show people the game, um, in situ. Um, and so is that in like a, another format?

Speaker 1: 00:17:16 It was like a little handout on OK. Uh, in part this was, I mean, we

can get like root, we, I can get really into root, um, because we, it just, we'd spent a lot of time on it. Um, what ended up happening is we had to learn to play in the law and then we ran a lot of blind usability studies, um, where we just would invite people over and then you'd sit quietly, they wouldn't even know who you were and you would just watch them play and learn and took good notes. And doing those studies suggested the possibility of a Walkthrough, uh, because it seemed like people just wanted a lot. So here's the thing that's surprised me. A lot of people, um, sat down with the game, open it up, and then just attempted to start playing without reading anything. Oh Wow.

Speaker 1: 00:18:02 This is a surprisingly common thing. I think we found it in maybe 20 or 30% of our groups, um, which to me seems harebrained, but it was, it was just how people were doing it. And so what they did is they would open up, they would look at the law and the law doesn't have any pictures, so they like skip the law. Um, and then they would look at the learn to play and it has pictures and they would just kind of like leapfrog from one example to another. Okay. And try to piece together

the game based on these examples. But of course like the examples are in the book to illustrate like funny edge cases. Well that's why I put them in there originally, which you can imagine as a bad way of learning the game. And so eventually we kind of were like, okay, well maybe a walk through is going to be the right way to do this.

Speaker 1: 00:18:49 So the way the walkthrough works is ideally a single player reads the rules and then does a walk through and the game is taught in an informal Q and a by the player who read the rules. So the walkthrough just says like, I'm the cat, I put a wood at my sawmill. It doesn't tell you what a wood is, doesn't tell you what a solid moe is. But the wood has a log on it and the Somnio has a little buzz saw. So like two people figure it out and if they have any questions and there are now I move three cats from this clearing to this clearing. And basically what happens is like, it's meant that a player will say like, wait, so wait, can I just move anywhere? And then the person who knows the rules will say, well, there's this restriction on moving.

Speaker 1: 00:19:27 Um, and so it's designed in such a way that players will have a conversation about the game over the course of these two turns. And by the end of the two turns about 10, 15 minutes there. They know almost all the rules of the game. And if they don't know the rules, they can, they can, uh, they can look it up by themselves. And in

fact, one thing that, that we always tell players when we demo is before you ask a question, uh, look at your player board because the answer's probably like right in front of you. And we tried to engineer all the player boards so that they complemented an intuitive understanding of the game with some specifics. Now the walkthrough has been really interesting because people either love it or they hate it. During Gen con. Last year people would come up to me and they'd be like, I hate that walk.

Speaker 1: 00:20:13 Uh, it ruined our session about bad words, bad words, and then within

two or three minutes, somebody else would come up and be like, the walkthroughs, the best thing I've ever seen in the game. We love it. Um, and so we ended up doing for the fourth printing, and this is not out yet, but I can provide all these files, uh, is, uh, we s w w this is actually now public knowledge because people will ask for it even though they don't want it. Uh, but obviously you're doing a research project. I don't care. I'm like, you're not going to lie. You're not going to live tweet this interview. So I'm not, I'm not worried about it. And this, this will be out in October. Um, so the fourth printing has a walkthrough in it, which is what we did is the original walkthrough was a single sheet that's front and back.

Speaker 1: 00:20:57 Um, we expanded that into a chat book, which is a kind of small

booklet that is I think 16 pages long or 20 pages and it takes the same text and then adds some explanation. And so if you want like something that is a little more handholding than our previous walkthrough, like now a player could conceivably just read the walkthrough and be pretty well off. And it also includes like more rural citations and things like that. And it's beautiful. We made it, we tried to make like a welcoming little book. So like when you open up the box you have this little 20 page chat book that's like, Hey, welcome to this game. You know, here's your walk through. And it very clearly shows itself as a walkthrough has long the illustrations and then you have another book that is the size. It's actually the exact same format as the little golden books.

Speaker 1: 00:21:45 And that's the learn to play guide. Lots of illustrations and examples,

very friendly looking. And then there's a letter size booklet, the law of route, which looks serious and is serious. And this filled with rules that are numbered like 6.2 0.5, section three. Um, and, and so there's a kind of like hierarchy and you know, for players who are experienced, they're gonna pull the law first and that's what we're, they're going to start. And you can the law, a lot of reference rule books, and this is especially true fantasy flight, are not written in a way that you could ever learn from them. They're usually like alphabetical. They're just friends.

The law is actually written like an old school rule book and you can learn the game from reading the law firm from cover to cover, uh, pretty easily. And in fact, I have a lot of players who prefer like th they just PR, they prefer learning the game from the law.

Speaker 1: 00:22:34 Um, but everybody's going to use it at one time. And in fact, after you

know how to play the game, the law is exceptionally easy to use because it's so short. Everything is so concise that, you know, if you have any questions about a rule relating to your faction, it's only gonna be about a column. And a half long or maybe a page or two. Um, so you can see everything on a single spread and you can find the answer very easily. Um, and in fact, that law is the game's living document. So every expansion that comes out, uh, has a copy or we'll have a copy of the law that is currently updated and has all clarification's and in it and everything. And the idea is, you know, if we make eventually a bunch of root expansions, you can throw away all this other rule books.

Speaker 1: 00:23:15 You don't need them, you just need the law. Uh, and w we'll cover all

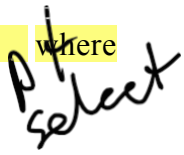
the cases. Um, yeah, so that's, you know, um, so, uh, getting back to the question about, um, design development, you know, halfway through route we said, okay, this is how the rule books are going to look. And about that time I bring in our editorial resources, we'd like to bring them in early in the process before the game is done.

Um, because we trust them. And also because it's good to have an editor sitting at the table and you're changing your game. Um, and then, uh, we iterate, we iterate. We eventually build a, a thing that we can present to the public. Um, usually it's good enough that we also send it to early reviewers. We then go to Kickstarter, get the money and then use that money to fund a few more waves of development.

Speaker 1: 00:24:03 Uh, and this can change a little bit with route. The Kickstarter happened about halfway or maybe even just a third into the games development with Pax Famir it happened like three-fourths into the development. Like after the packs from your Kickstarter. I edited like there were three systems that got adjusted. There was some graphic design work, but if I were doing it full time, it would have been like the work of two weeks or three weeks. Ah, because I was doing it part time, it was the work of two or three months. Um, with route. We finished the Kickstarter in early November and that kicked off, uh, four or five months. A fulltime development is, there was a lot of work on that gave, it happened after funding because we needed the money. Right. Yeah. And that's, you know, that is a pretty, I mean I can go into more specifics with any of the particular elements.

Speaker 1: 00:24:56 One thing I didn't mention that is worth mentioning is I, um, I have a really good stable of flight testers I've used for a long time and I, the way I like to, um, cycle them in and out. So I'll build like a gap chart that's like, okay, you're the ace squad. I need you in the early parts. And I have some groups who love working in an early part of the design and hate working on like the fine tuning development side. And so I, I try to not have a same group for the entire thing we use. I'm just going to exhaust them. Right. Um, but I also try to use a small enough play tester group, a small enough set of groups that every group is expected to play the game about 10 times. I'm not really interested in their first impressions. That's a different kind of study I need like experienced players.

Speaker 1: 00:25:41 And in fact, we've, we've expanded this a little bit when we do root testing now in office. Um, we have like testing summer camp where we hire a bunch of people. We paid them $10 an hour, um, to come play route all day for a week or two. And the reason why we do this is because, um, if we're doing balancing testing, we need experienced play testers. And it's a funny thing because people don't play their games that much oftentimes. So, you know, we had, we did orientation for our playtests. It's usually a bunch of people apply and then we select a selection of them.
Um, and when, uh, when we were doing our testers, um, so everybody, you know, it goes



around and someone says, Oh, I've only, I've never played rude. I've never played rude. I've played at once. And it's something I was like, well, I've played a lot.

Speaker 1: 00:26:28 I've played it maybe five times or something like that. Um, which is a lot and I get that. But at the end of that meeting, I like to say like, you know, at the end of this day, all of you are going to be as experiences that Rhonda who played five games and by the end of the next week you'll have played 35 games. Um, and so like I, I create like paperwork and they have little forms of they have to do in charts and we have, you know, strategy, breakout sessions and all the rest. But our, you know, our hope at when like when we're using those testers, their only goal is to break the game and we need them as experienced and as sharp and as mean as they can. So like, if you know, if one faction is struggling, I'll find the best person in the office at that faction and have them do a breakout strategy session about how to play that factor.

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Speaker 1: 00:27:13 Okay. Um, now there's another type of testing that we'll do at the same time, usually in different rooms called just usability testing where we look for people who have no experience at as soon as they've played the game, once they disqualify themselves from any further testing. Um, and you know, this is where we just kind of ask people to look at the documents to kind of sort through all that stuff. And this is usually happening in

Single-use pts

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the last like two months of any process where we're preparing the files. Um, and kind of getting everything ready. We're actually right now like, um, the route underworld files are in digital proofing and PPC, which is where they actually are going to build, um, like copies. Um, we have one set of products, uh, that still needs updated files, but we're doing that testing during this process because this is the advantage of having, like I do a lot of the main graphic design in the file structure and then the developer of the game does the other half of the graphic design.

Speaker 1: 00:28:13 And so we're both very into this production process. And so we use it

to know that like, well we can update that file later and not slow anything down. So we run like very hot compress. So we don't have any clean handoffs as I guess what I'm trying to say. Um, we're oftentimes, it's like, okay, I'm the designer, I'm done. I will then hand it to the publisher who then hands it to the developer. After the developer's done, they hand it to the graphic design team and they hand it back to the factory and the factory hands it back to the public. So that doesn't happen with any project work done because everybody's working on the product is working on every stage of the PR of the process. We can move a lot faster and be a little more agile. Um, it also means we can make bigger mistakes. [inaudible]

Speaker 2: 00:28:54 yeah. Um, I want to go back to something that you had said, um, a little while ago cause I was curious. Um, I had, I think your brother had mentioned that, um, pack spirit packs premier came out of your, um, uh, research in the PHD program. Um, can you tell me a little bit about, uh, how that, that happened? A little bit about that background for packs? Yeah,

Speaker 1: 00:29:19 sure. So, um, I, uh, got my phd two years ago, um, from the University of Texas at Austin. Um, in English. I'm Victorian us by training. I worked a lot in the 19th century, specifically about empire and early, uh, telecommunications or just communications I guess. Um, and I, uh, play games, but it w it was at ut, I'm at a little game store called great hog games that I discovered, uh, the work of this man named Phil Eklund, who is kind of an erstwhile academic and former rocket scientist who designed games that had arguments that kind of behaved like academic treatises. Um, and I'd never thought about taking my work and put it into a game, but Phil made it seem like it was possible. And so I helped him work on a game about Greenland that is about, um, the [inaudible] colonization of Greenland. And about climate change on a kind of a small scale, um, and, uh, really enjoyed that work.

Speaker 1: 00:30:22 And then, uh, Phil and I were talking about my research and he

suggests I was, I'm working on, I was working on a chapter about the great game and he suggested that as the material for a game, uh, I didn't really know how to approach it. Uh, the great game is like a truck, kind of a troubled period and it's, I didn't wanna make a game that was just like James Bond, Victorian James Bond, because that's nonsense. And it works against a lot of the research about who had agency and who didn't at that time. Um, and then while I was in graduate school, I saw a talk, um, about Britain in the Pacific, uh, in the 19th century. And then I went, um, to a conference and, uh, in Hawaii that have a now it was around the same time and it, uh, it was about Hawaii in the, in the British empire.

Speaker 1: 00:31:15 And they both really shifted my, my view of, of the subject and

suggested that like, you could do a game about the great game. It just the, the players are all screwed up, like Britain and Russia were being played by their extremist, um, like the, the, the Russia phobes and the Anglo phobes in both countries. And if you want agency look for it on the ground. And so I started thinking about making a game about Afghanistan that was built around the players controlling kind of Afghan political factions. Um, and then we, which just to say again about empire viewed from the outside. And that was really important to me because most games really screw up how they deal with empire. They're very, like, they're in the, the

colonial, colonialist fantasy genre. Uh, but it seems pretty possible to kind of reverse it. And so that sparked a period of a lot of reading.

Speaker 1: 00:32:11 And I read every primary history I could find. Um, and I read just all the, I found all the experts I could because I didn't know that much about Afghan history at the time. And so I just, I read and I read, I read a, that eventually led to, uh, led to, to, to that game. And then, um, I was also working on a game about the, the east India company that first turned into game about the opium wars and then back into the game at these in the company. And in sort of general, I've like kind of worked on this like trilogy of games about the 19th century British empire. That is not an a story that I felt like I was seeing taught in games at all. And, uh, as per my comments earlier, like it also mechanically is very different from the sorts of questions that get asked by games.

Speaker 1: 00:33:01 So the Games are very interactive. They're quite mean. Um, they have a random element that is, um, I think the most charitable way I could describe it would be to say it's tragic comic. Uh, but some players find it hilarious and some players find it irritating. Um, so for instance, like in, uh, an infamous traffic, again about the opium wars, um, you play kind of slimy British merchants who

are doing horrible things abroad. And the payoff, the reason you're doing it is to send your science back for the one season, um, where they could break their leg in a riding accident or maybe win a fancy hat or maybe Mary, uh, Mary, you know, the, the niece of the queen or something. Um, but you don't have a lot of control over what's gonna happen to your idiot son. Uh, you just have to make sure they've got a lot of money so they're well positioned for the best thing to happen to them.

Speaker 1: 00:33:59 Um, and that randomness, it like, it, it really exists. Not because it's mechanically interesting, although I think there are some interesting numbers behind it. It ends exists mostly because it was a big part of the story I wanted to tell about how the domestic sphere informed and encouraged a lot of horrible behavior abroad. Um, and it wasn't like they didn't want to just make a lot of money to make a lot of money. Nobody wants to make a lot of money for that reason. They always have a thing about it. And I was inspired especially by um, Slaughters Game Greed Inc, which is a kind of like mean financial management game. Um, that is all about buying status symbols. And so everybody amps up their meanness and their horrible things that they're doing because of this. It's like an arms race to buy the most status symbols. And I thought, oh, this is a business game that actually makes sense because money isn't victory points, but a reputation might be.

Speaker 1: 00:34:58 Um, so yeah, I mean, you know, I, you can probably see from, uh, or

you'll probably hear from me talking about this and there's a lot of different places where my research, both specific things about the work I was doing within also, some were kind of like general training, um, was put in place. In fact, my, my whole process for making a game is not dissimilar from how I approached writing a dissertation. Uh, in fact, if I ever go back to the university, I'm going to make an argument that each one of these games is pretty much like a book. Um, in terms of the work and the amount, you know, the thought that went into it. Yeah. I can, I can tell,

Speaker 2: 00:35:38 uh, the, the processes you're describing and the design and play

testing, uh, that you have a, a background in research. Like it's very clear that, that your, your methods so far, uh, from what I'm seeing are, uh, perhaps the most, um, uh, they have the most consistency it seems like, uh, in terms of data

Speaker 1: 00:36:00 action. Um, yeah. And I found that like my process has been very, s

has felt very stable, at least to me, from one game to another. Like, it's definitely a changing and growing, uh, over the years. But it's pretty much the same way I think about doing a game. Uh, and you are getting me right now, like I am in the early stages of what will be my next big game for leader. Uh, and so I'm, I was kind of dusting off some work

that I hadn't done in a couple of years and I found it mostly looking and working the same as it always has.

Speaker 2: 00:36:33 Yeah. There's a, a lot of rigor to your process that I, I enjoy hearing about. Um, it's refreshing. Um,

Speaker 1: 00:36:40 mostly fun on my side.

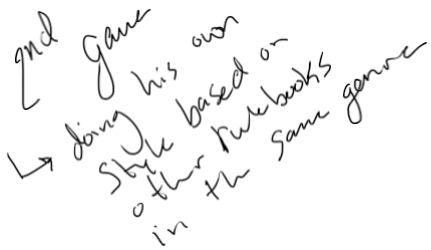
Speaker 2: 00:36:42 Well, good, good. That's the, that's the, the best marriage between the two. Still Fun. Um, all right, let's move into manual design questions. I'm sure. When you were writing your first board game manual, what kind of resources did you draw upon? Um, to learn how to write the genre? Um, so, uh, yeah, I guess like how did you learn how to write a rule book?

Speaker 1: 00:37:04 So a, there's a convention, this is another academic convention about writing articles, which is to say the first thing you do is you read all the articles that journal publishes and then you just try to make yourself have, do the least amount of work, right? So are you want to present something that will require very little work

from the publisher itself? Um, because it'll just, your chances of publication increase astronomically because, you know, they look at it like, oh, this would be easy to slot in the July issue or whatever. Um, so, uh, what I did with, with, with familiar the first edition is I looked at all the stuff that Phil had done and I looked at how he structured his rule books and I just took that structure. I had no, uh, preconceived like this is the ideal structure for a rulebook. Um, after I was like

Speaker 2: 00:37:55 to, to the style of the person that you

Speaker 1: 00:37:57 Yes, exactly. I completely just copied it. Um, when I got to infamous



traffic, which is the next game that I did, um, that was a little different. So with infamous traffic, I, there wasn't a set style and I was thinking a lot about war game design and about economic game design and looking at rule books. And I tried my hand, this is like my first attempt at writing a rule book that was, um, like my own ideal of a rule book. Uh, and it's probably the worst rule book I've ever written. I think it's fine. It's just, it has, it has some problems. I, I'm, I'm actually in the process right now thinking about rewriting it. I have, and I haven't read it in maybe a year, but it's the one that most people complain about by far. Um, and the, so you know, what I did is I went back and looked at games like titan 1830, um, kind of classic Avalon Hill Games that I really require admire the rule of

design, the car, uh, combat commander.

Speaker 1: 00:39:07 Um, and I looked at those games and said like, okay, can I copy this?

Or actually another one that really matters. A lot of slaughter games, antiquity, uh, food chain, megawatt magnate, Rhodes rosand boats especially. How do those games work? How the rule books work? Can I just copy that? Um, and I think I had mixed results. If it was traffic was also, I think the third game published by Hollins Spiel. They were brand new. It was the third game published by them. And they're launched titles. They all developed at the same time. Okay. And what ended up happening is I wrote the rule book, I gave them the game and then I expected they were going to change both the game in the rule book and they sent me back in. They said, oh no, we like all this, we're going to just go with it.

Speaker 1: 00:39:50 Um, and so it went through a very small editorial pass. Um, but just

not that it just didn't get that much attention I think. I think it was like close enough that it didn't get that final rage of Polish. Whereas if it would've been a little less done, I think they probably would have done it more. Um, and then I did a Khyber knives, which is an expansion from year that had a small rule book. Uh, that was one like basically Phil was so happy with how premiere works that he told me if I send him the files for a game by May, he would just

publish it for, for us in the next year. He said, you know, obviously pitch it to me, show it to me, but you should have an understanding that if you want, ah, a project, if you want to us slot in my production counter, you can always have it.

Speaker 1: 00:40:40 So I did Kira knives first and then I pitched John Company to him and

then did John Company second. I'm with Jod company building on infamous traffic. I had a very, um, I was sort of starting to form an idea of how I wanted a rule book to look. And so I was like reading a lot of the [inaudible] so John Company is a very, very big sandbox game and it was kind of inspired by Republic of Rome. So I spent a lot of time looking at the Republic of Rome rulebook. Um, now these are all rule books from like the 1980s, early nineties. Uh, so I wasn't really reading modern rule books, uh, during this time. Um, I mean I was playing games and having opinions about them, I guess. Uh, but it wasn't like I didn't have any, I didn't know. I didn't have any sense of like where the cutting edge was in terms of rule book design.

Speaker 1: 00:41:34 It was just kind of going with things that I thought were useful. Um,

JOC company was also produced under a lot of duress. I was

finishing my dissertation and also preparing to move from Austin, Texas. Uh, and we had also, I think our second son was like turning one and they were a bunch of surgeries that he had to go through. He's fine. But, um, it was a very busy time. And so the early on I said, okay, I think the Jack Kennedy rubric is going to look more like a regular development rule book, just because I'm not going to have time to make something like that's gonna hold the user's hands or anything. Right. Um, and also, you know, uh, I was preparing these games for small print runs and these are people who have a high tolerance for goofy, hard, difficult rule books. Uh, but, but most of my, like I was, and I was also having, there's a man named, um, JCL, uh, his username on his, uh, his name's Jaycee Jaycee Lawrence.

Speaker 1: 00:42:35 Uh, his username on BGG is clear claw. Um, he is brilliant,

wonderful. He's kind of a curmudgeon, but he's a very smart kind person. Um, and he, I'm in a s a telegram chat with him and he writes a lot about rulebook design and uh, he, he does like design for 18 x, x trained games, that kind of stuff. Um, and has a very like philosophically pure like here's how our rule book should look. Uh, and I find, I found that stuff very compelling. Um, so did John Company, um, in that, in that format. And then with root though, uh, because I had resources I like, we read like what's the rising sun rubric look like? What's the blood rage rubric look like? Who are the average

people who are buying root? What are they like wanting from rules? I'm going to look at all of the vast rules, threads, vast, the crystal caverns, the first game leader published.

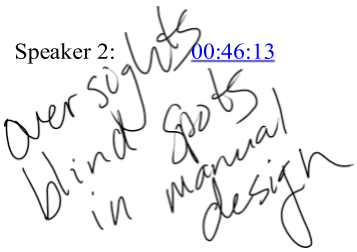
Speaker 1: 00:43:33 I'm going to look at them and then I'm going to think about how I can improve routes, rules so that we don't have that many problems. Uh, and then these, these conversations were happening with our editor Joshua. So most of my games were edited by a man named Travis d hill. Um, root was edited by Josh fiercely. Um, is it probably the best editor that I know in board gaming? Uh, he's, he's amazing. I was able to get an interview with him and he's fantastic. Yeah, he's just, he's, he's a good, he's a good egg and I, I love working with Travis is great too, but like Josh is, um, he's advanced the art of rubric editing. Um, and so, you know, we had a really clear rubric with, with route about what we wanted out of this rules and it was very sensitive to where the marketplace was and for the demands of the game.

Speaker 1: 00:44:25 And then with, with, with premiere, what was nice is I sort of took all the lessons from root and I at like my curmudgeony like this is what a rule book should look like. And I said, okay, with premiere I'm going to write that like very simple, very clear rule book. And then also I'm going to dress it up a little bit. And like be a little more conversational and uh, because a lot of people are going to be encountered premiere

who've never played a historic game at all because of how Everwell route did. So I want to be there for those people. And so with Tamir too, I tried to establish a slightly more conversational style that was still very clear, but it was just a little more um, casual and accessible. Uh, and I think that it hit the notes pretty well as far as I can tell.

Speaker 1: 00:45:14 There was only one rule mistake that was made. And I've like as an instance where the wording isn't quite clear, but the actual rule book itself, people have seemed to really like, and in all the threads I've read, like if there was a question where someone who got it wrong, some, I've never had to correct anybody because somebody will correct me before, correct them before I get there. Um, and but it was, it was a real attempt of saying like, okay, all the accessibility studies, all the stuff we ran for root, can I apply it to a heavier historical game? And the answer was like, yes, 100%. Um, I also wasn't in control of foreign factor. You know, the early fill games have these tiny, tiny small rule books, uh, that are just very difficult I think to explain the game with, uh, with the premier Roebuck, I decided like the dimensions of the page, how I wanted it to look, what I wanted to be on the spread, um, and was able to put a lot of testing into that.

Speaker 2: 00:46:13 Right. Um, so when, uh, you're writing your manuals, um, I actually, I think this is pretty much covered that you drawn support from editors from your play testers. So we can probably move onto the next question. Um, uh, what oversights or blind spots do you tend to notice when revising your game manuals? So are there common issues that tend to crop up in the first few drafts?



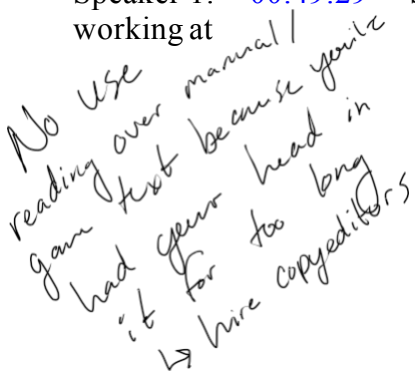
Speaker 1: 00:46:37 Sure. Um, so I'll, I'll say one thing about, um, the, the play testers and who belong drawing on, um, Google docs is a widely used platform as I'm sure you know. Um, and w we use it, I use it to like everybody else. Uh, it actually, Phil is, it's amazing. It's full keep as Google docs open and I, if he gives you access to one of them, um, I strongly recommend it spending some time with them because you can just see all the work. It's like someone who just shows their work for like a year of design and those documents, like you'll load the Google doc, it'll take five minutes of your computer to like stick it in. It's Ram because, because they're just like so complicated and there's so many threads. Um, I try, I have lately been trying to get things to lay out as soon as possible because, uh, once you know the number of spreads, it's a little more on my end as a graphic designer, but um, it's just a lot more useful than a Google doc.

Speaker 1: 00:47:34 Like as soon as the language is even like remotely polished and like, okay, let's get into the layout right now because I just like the, the layout of a page and the spread is almost as important as the language. And so the time you spend thinking about how the document should be laid out. Like I just, I think Phil keeps us designs and Google too long. Um, so, uh, did well. Oh, the blind spots. Um, so for me, uh, well there are a couple of things. Um, blind spots. Okay. So we have to think about different errors that can exist in the rule book. So typo errors are usually because I was fiddling in, didn't send something back into copy editing, which is separate from editing and we like, I, I try not to use our editors for any kind of copy work because I know they're going to screw it up, uh, because they, they, they've just seen the document too much.

Speaker 1: 00:48:29 They're not a good copy editors. Um, so, but that blind spot does happen. Um, they have a blind spot that it has like a rules exception or some kind of like weird or rata case that isn't being covered. Um, that is usually because a group that found that in testing didn't communicate it or more commonly we made a change but it didn't get put on the right to do list. Um, to be kind of like really bland about it. Um, more general accessibility things. Um, what we have. So one thing that we've found is to, um, so, uh, let's see, I'm trying to throw to explain this. Um, this, this kind of weird concept. So, uh, as a player, uh, as a tester, as developer, uh, you get worse at your job. The more you do it, you get better at

certain parts of your job, but you also get worse at other parts.

Speaker 1: ~~00:~~49:29 So like a development team is, so, uh, when I first started working at



leader Patrick, I always had this rule that everybody had to read everything before it was published. And I told them we were wasting our time because if we've spent the last half year working on a design and then you have to read every bit of texts related to it, you're not reading your, you are like, there's just no way that you're actually going to catch any air. Right. Um, so we actually just need to hire a copy editing team, which we do. Um, so this is actually true for accessibility too. Um, we found that what happens is when we do early tests we'd fix a problem. The only people that can actually tell if a problem has been fixed is a group that has never experienced the game before and they are a very, uh, inaccurate tool.

Speaker 1: 00:50:12 You really need like three groups that haven't experienced the game before to like fully catch it. And so because our, our, our evaluations and our usability

definitely like should have been in the route, learn to play that weren't there because most of the people who were testing the learn to play had played the game before, even just once or even like halfway. And so, you know, they, they, they, they just were able to, um, to figure it out. I mean, I, I think a lot of our processes designed so that we have the fewest blind spots possible, obviously. Um, so it's like, I'm sure we have blind spots that I'm not, I'm not thinking about.

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Speaker 1: 00:51:03 Um, but I'm had, I'm trying to think of other things that, um, with pacs

premiere, I didn't really do any usability trials on that. So I like, I, it's just, I, it was outside of my bandwidth to do them. Um, and so the one rules there that exists, it exists because people, um, the way that the rule was written would make sense to somebody who had read the rules and was familiar with the game. But if you're reading it very, very, very literally, um, you could maybe stumble on it. Um, yeah, so I think, I don't know, it's mostly the blind spots that exist mostly are not just testing cause that's kind of a black box, but specifically cycling good observant new players into a testing system. And then on our side having equally good observant evaluators who are watching them play. Okay.

Cycling playtesters necessary for usability tests on manuals

P+ select

Speaker 2: 00:52:05 Um, can you tell me a little bit more about, um, the importance of, of

getting the spread right, of, of the graphic design aspect as you're

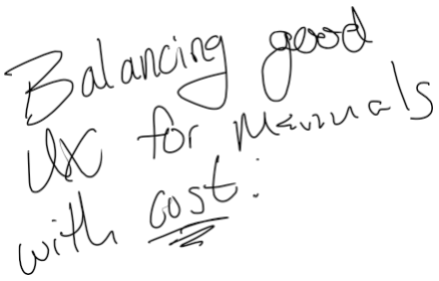
like doing your initial, uh, sure that, that first role book? Yeah,

Speaker 1: 00:52:18 so, um, people read in weird ways. Like, I mean, I don't know, I read a lot of books. I like starting at the top of page and any at the bottom, but many people don't read real books like that at all. Uh, you can see this if you just give people a rule book and you ask them to like just watch their eyes. They will read, they will start trying to read from top to bottom, but then they'll pull into an example or they'll kind of like just kind of leaf through it. Um, and a spread can communicate a while. I think that right now, um, board games are in a kind of like interesting and stupid position with respect to how they do page layout. So, um, you know, you can have a rule book be about as big as the box in terms of the size, right?

Speaker 1: 00:53:00 But a giant square sheet is like an awful form factor for reading. And any graphic designer could tell you that, but people are taking it because a, they want space. And so they want space for examples. And but actually what I mean, if, so the example I always think right here is a game called, um, blackout Hong Kong, which came out last year by Andrew Fitzer, published by, um, oh, I can't remember. I could just feel maybe, I mean a big company, a big like flagship game, uh, that has one of the like most comically bad rule book layouts I've ever seen. It's just like completely overwhelming. And, um, one of

the, and, and, and I, I know this too because you know, working with Phil, he puts everything he can on every page. And that I think is it really, um, you know, all of the work that I did in graduate school, I'm pedagogy suggested that like this is not the right way to teach.

Speaker 1: 00:53:58 You really need to pace yourself. Contextualized contextualist



contextualize. And that can be applied to rule books too. So the example that I think is really good, his Capstan Games is um, game. The estates, which is the report of, do I have it? Um, the estates has an amazing rule book. It's fabulous. It's wonderful. Um, the writing is fine. It's like not exceptional, but the layout is very good because it paces you and it says, Hey, this spread, we're doing this one concept or these two concepts. Um, and so the actual page count for the rule look is a little longer than it needed to be. I mean how you could fully fic out, fit all those rules on a half sheet of paper, but you, it teaches the game quite effectively. Um, and so I think a lot of publishers are very cost sensitive when it comes to rule books, but more pages is almost always going to give you a better rule book if you get, if you use those pages to give your, uh, your, your layout space to breathe. So I mean, so I think my interest in layout is coming mostly from how I think about teaching and also just like the principles of

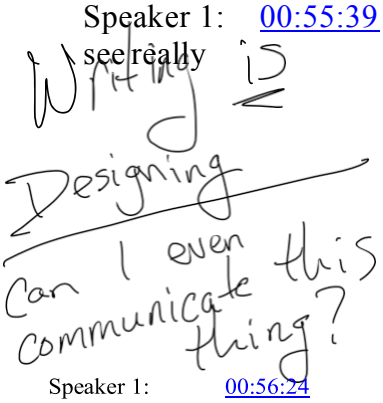
Pacing the user with white space

good graphic design, how a textbook works. I mean, the textbooks don't, there's a lot of white space in textbooks. Right? Um, and you know, little sidebars or a big illustration like that white space isn't there because they just want to fill the book with, with pages. They're, they're trying to pace the student.

Speaker 1: 00:55:23 Okay.

Speaker 2: 00:55:24 Um, what common mistakes do you see, uh, other designers make in regards to their manuals? Um, so if you could advise future designers on, on best practices to keep in mind when writing their manuals, what would your advice be based on what you've seen there in the field?

Speaker 1: 00:55:39 Um, design. Okay. So there's a few things that they, they I see really



commonly. One of them is a, they don't write their manual at all or they write it very, very, very late in the process. Uh, but writing is designing is writing as designing his writing as designing. Like there's no clear difference. And if you are paying attention to, if you are having trouble explaining a concept in your game, it is as likely that the concept is can volted as as well as like the writing. So like I think it's just, it's a good way writing a rule book as a way to hold up a mirror to your own work and you should be doing it as early as you possibly can. Like as soon as you are assembled, you should hold up a mirror to it and say like, okay, is this, can I even communicate this thing?

Speaker 1: 00:56:24

That's my, my biggest complaint. Um, the other one is they should be

Bring editors in early in the process (when you

bringing in editors early into a process and they should give the, the editors are not just proofreaders, they are helping you structure your ideas. So you should be, um, if you can, uh, and if you're a publisher, you definitely can, but you should, you should bring the editors in early in the process and you shouldn't franchise them in the process and give them some development latitude because your games will be better for it. Um, those are kind of my two main things, early editors and earlier rules. Um, [inaudible]

Speaker 2: 00:57:00 you do like a Kickstarter. Um, do you, do you release like an early

online version of the manual, um, and solicit feedback for it? Is it something that you're just putting up there? Um, so they have an idea of what the game looks like. Um, I guess how does crowd funding or crowd sourcing factor into, um, these like manual designs?

Speaker 1: 00:57:21 So, um, I'll leave all the, the, the game design and product design stuff

off the table. Um, because I, I'm, I'll keep it on manuals for time sake and for, you know. Right. Um, so I um, sharing. So for every project I've worked on, I've shared a lot. I share a lot of design stuff and I also share a lot of rule book things, um, because it you need a steady stream of people who have never read your book before to get good feedback and um, with a rule book. So there are all these metrics that you can use to gauge how good a rule book is. So Josh, when we did root, our metric was, is every

Is every rules question answerable by the rulebook (are there gaps?)

rules question that you could ask answerable by the rules. Now that seems like a very like low bar to clear, but for a game like root, it's a very high bar because there was, I mean the game is so asymmetric.

Speaker 1: 00:58:10 There are so many like weird things about it that building your complete manual is very difficult thing to do. And I'm really happy with how well it turned out. I'm a releasing that manual online is not really going to help you because people are going to say like, oh, I didn't really understand this thing. You're like, well, this rule book has a very like, limited style for a reason that it's going to generate other problems. So if I answer your question, um, and follow that through the rule cause going to get a lot longer and a lot less clear. Um, but that Hubris that informed Josh and i's conversation about route I think also created a problem where there were obvious like we were trying to operate from a position, a philosophically pure position and

Rulebooks are messy documents

rule books are messy documents. And so, uh, Josh and I remarked on future projects that, um, that we are going to care less about completeness and more about the number of rule book threads that crop up on BGG.

Speaker 1: 00:59:10 Uh, which seems like a horrible way to judge a rule of

Sharing draft docs to get as many eyes on it as possible

you know, just what are the communist questions and then let's make sure that we get addressed those common questions. And if that means that we have to put in a bunch of idiotic reminder texts to tell someone to reread the paragraph,

Dropbox link and asking me to comment. Um, I, uh, didn't arrive on this idea by myself. Uh, Josh was the one

Speaker 1: 00:59:55 And Josh asked Jamie State Meyer once, like, why, how did the

Power of the crowd: Scythis rulebook & how Tabletop Sim helped with Pax Pamir (2nd printing)

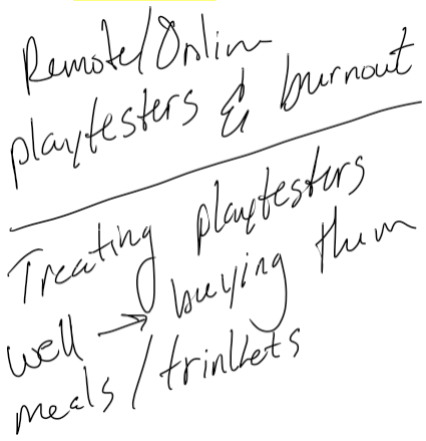
Scythe rule book? That's really good. And Jamie said, you know, um, we just had the Dropbox document up for a long time and then we would update it and then we would send out a message and say, Hey, we updated the Dropbox link and then people would read it again. And we just kept doing that. And like the wisdom of the crowd eventually got them toward to a good rule book. And so with, with premiere, um, I, a fan of the game made a very, very good tabletop simulator model, a module of Pax Premiere. And then, and so the, throughout the end of the campaign, there was a very active group of people they'd play maybe twice a week. Uh, and so I was always sharing with them an updated rule book and there were

(crowd

people that were cycling in and out of that group. So there was kind of always a fresh reader in it. And, uh, there were many, many changes to the premiere rule book just for the sake of like absolute clarity, uh, that were because I was just soliciting those advice. They didn't have to anything to do with me or my editor, but they were just people playing the game, reading the rule book online.

Speaker 2: 01:01:00 Yeah. Okay. Um, and then, let's see. Yep. And I think you already covered this question. Okay. So let's move into prototype questions. Um, you were talking a little bit about a selection of prototype testers. Can you expand on that?

Speaker 1: 01:01:16 Sure. Um, so a play testers tend to burn themselves out after about two or three games. Uh, this is understandable because it's hard to gather a group, convinced them to play something that might not be fun. And then, uh, so they themselves are putting upon their group and then you are putting upon them because they have to like cut out the prototype and like build it. Right, which is work and labor and ink. So, um, and they also might have their own designs. They want to work on most play testers or budding designers. They want to learn the ropes. I mean that's certainly how I was. Um, so because of this, um, I try to, uh, treat my play testers very, very, very well. I will always buy them meals if I'm in the same town where they are at, I



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will send them like trinkets and like, so after we did John Company, I bought these like funny little, um, wooden elephants from India and I like send them to all, all of my best buy desk groups.

Speaker 1: 01:02:11 So they had like really cool, like, you know, special pieces in their

Community Managment to keep a stable of playtesters engaged.

games. Um, and so all of that key, I do a lot of community management too to keep them my play testers around. Um, but what happens is they kind of separate themselves into groups. And actually right now I need to, I need to refresh my pool because it's gotten a little soft. Um, but there are, when I read the, the feedback reports from our play testers, you can, I can tell a lot about um, about the things that they are interested in. So like some people are just fans, so they just want to play your stuff early, which is great because they're going to want, they're going to play your games a lot and love them, but they also do not want to be in the early stages of a project. Right.

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Speaker 1: 01:02:59 And other people are really interested in the process but don't really

People who love playing games vs. people who like talking about games

care about the like playing that like playing is their least favorite part of games. They will prefer to talk about games. Those people are very good for the early stages. And then the other thing that will happen is, um, play testers are obviously there because they like your work and they think it's interesting. And so over the course of mediator, uh, of many projects and cycles, um, the plaintiffs is that don't like your stuff will leave. And the play testers who do like your stuff will stay around, which means they start to get a very strong positive bias. Okay. And so did they become like in general, like not very useful? Um, so I actually, uh, when I'm taking play test data, I never ask play testers if they liked the game. I never, uh, collect information that is like, would you, how would you rate the game on us?

Speaker 1: 01:03:48 Like that? Nope. Nope. Those are bad numbers. They don't mean

Asking if is fun is a useless question

anything. And I see so many designers put those numbers on their forms and I'm like, you are not, you're just not getting any useful information. Like if you can't sit down and tell if someone likes the game or realize, I mean, if you're first of all [inaudible] they're not there to like the game. They're there to help you with a design problem that you're having. Um, and so I think it just, it optimizes for very like, conservative design that that goes towards established systems that, you know, people are going to enjoy playing. Um, so, uh, yeah, I

don't know. I mean I try to, um, I try to sort of cultivate this group mostly. Um, it's, it's by word of mouth. Um, I look for people locally and who are group adjacent, who are interested in design.

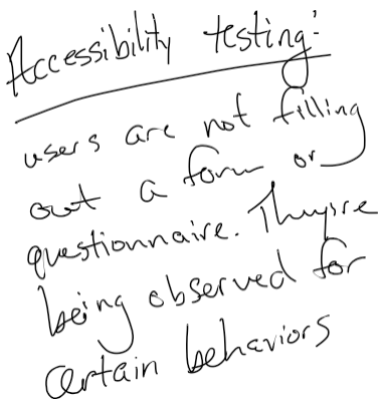
Speaker 1: 01:04:42 And because a lot of my design work isn't just like, here's the finished

game. I like, I like to show my work. What happens is the people who read my design diaries will often ask to play tests for me and then I put them on a big list and I, you know, I'm never quite sure what to do with the big list of every once in a while if, if the ranks of my core play testers are a little soft, I'll go to back to the big list and pull some people in. Um, actually right now I'm thinking about retiring that list because I have our staff at leader Games is big enough that I don't, I can use them for a of play- testing and then, uh, we'll hire people for balanced playtesting and for usability play testing.

Speaker 2: 01:05:27 All right. Um, so tell me a little bit more about data collection during

play testing. In terms of what kind of data you tend to collect and how it's mobilized, uh, and then any kind of, um, tools that you use, uh, that can be anything from, um, questionnaires or surveys. It could be, um, you know, any way that you're, you're collecting data, video, play through play throughs, et cetera.

Speaker 1: 01:05:50 So a, the day I collect, uh, depends on where we're at in the process.



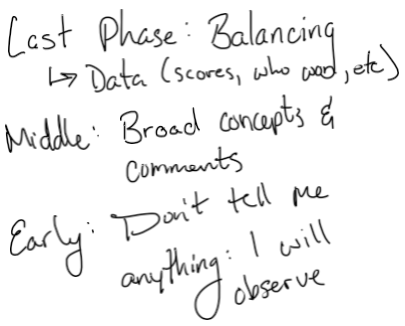
Um, so for something like, um, an accessibility study, um, we will, uh, the observers will watch a game and be tracking anytime a rulebook is looked, anytime a rule is messed up, anytime a player tries to find the answer on a player board, um, anytime they aren't able to, you know, those were basically they have a list of questions and the play testers are not doing anything. They're not filling out a damn form. They are playing the game and we are taking notes. And in general, that is my default way of data collection. I prefer data that is collected in such a way that the participant is not touching it. Um, so for instance, when we do root balance tests, what I will say is, um, please record it's thing that a thing that a robot could do, like please record the score every turn for every player and tell me what factions were in the game, what the turn order was, et cetera.

Speaker 2: 01:06:58 And that's your observer's filling out.

Speaker 1: 01:07:00 Then my observer. But I like it when we do balanced play tests. We don't have enough staff to have people on all those tests because they're running them every day. So I'll have the play testers do that. And then, um, what I will do is if we're doing a balanced

play test, I will ask the winner of the game to explain how they won. And I will ask any person who felt like they were not in contention or struggling to, to sort of say that and also say why they think that happened. Okay. And then I, I will read those things each night. Just like they just give a little bit of a context where like they're, they're, they're saving me time because if I like got my boy, the moles are really doing well on games with the auditors and then I turned in the back and they're like, well, I bought all the otters cards because I was sitting to their left each term.

Speaker 1: 01:07:47 And that like really gave me a jump on everybody else. Um, so, uh, so



I have all those things. Um, so like on the, so basically the, the last phase of testing, the balance testing is that kind of data is tell me what happened in your game, but also tell me what the scores are and piece out that's it. We're done. The very early stage is, are the accessibility stage for a new play tester is you don't tell me anything. I'm going to watch you play and take good notes. Now the middle stuff, um, where I'm actually trying to like work on the basic design, um, what I usually ask are, I usually ask for are, are just kind of comments very broadly. And what I really want are like little pressies, little like 300 word, 200 word. Hey, we played the game, here's the general arc of the game.

Speaker 1: 01:08:44 Um, so what's this thing really about? Like are you, do you, is your

game? Is it about turn order? Because there were these things there may, maybe. And really what I'm talking about is like, I'm talking about design with these people and so I'm, I have a guy and I could probably turn over some of these, uh, at a point if you'd like a guy named grace and page. Excellent, excellent play tester. His group, they write these like two or three page reports. I'm usually clusters of three or four plays. Um, and they just kind of ask me questions. Okay. And they don't want answers, but they're just like, so we saw this thing happen and we wonder like, is this a thing that you want to be in your game? We saw this narrative thing, is this the thing you want in your game?

Speaker 1: 01:09:26 And they're not interested in my answers necessarily. They're just

More on different processes for various stages in the design process

kind of like, they're wanting to participate in the internal monologue and in the like design chat that is circling around the game itself. Um, and so, uh, each of those different kinds of data goes in different places. So for example, um, the play testers that are in the early stages of the process that are producing those long form like questioning essays, those are then like, that data is then participating in the design conversations between myself and maybe them or myself and my developers in them. Um, and it, it's very conversational, very qualitative. Um, the feedback from usability trials, um, those things get turned into action items. And then we have big meetings where we argue about whether or

not we can implement those action items. And then the data for balancing goes into spreadsheets. And I, I look at it from lots of different angles.

Speaker 1: ~~01:1~~10:30 I'll say like, okay, so like we did a root, general balanced survey and

we found that like, oh, you know, there's, this faction is favored in these circumstances, but if you correct for the experience of the group, it's actually the opposite. And so we do a lot of that kind of analysis, but I, you know, so I, I dunno whenever, I never know how different I'm behaving. Um, and the, you don't have to tell me or anything, but sometimes I will see plaintiff's reports, like average, um, that little book came out. Do you know what I'm talking about? Is it's like a notebook, like a p a a game designer's notebook. It was on kickstart. Yeah. So it's, I always knew it was called. It was like, I think j r Honeycutt maybe did it, I dunno. It's like the game designers notebook or Daniels Aas. And it had like, did people have fun and have, it has like these little, like prebuilt feedback sheets. And I looked at, I thought like, I've never run a project like this my life. Um, and, and so I, I think that, you know, everyone kinda does it differently, but that, that's a little bit how I, how I treat data when I'm doing this or I'm doing this kind of work.

Speaker 2: 01:11:37

W W

what was the name? Uh, of the person who the [inaudible].

Speaker 1: 01:11:40 It's either like a Daniel [inaudible] or a j or Honeycutt. Um, so here,

let me see a game designers book. Okay. Okay. Um, okay. Okay man, I wish I could find it. It's like I will, I will ask if I, if I can recall and, and discretion, because it was, it was such an interesting product because it was a Kickstarter and it was, it was a, it was a Kickstarter. Let me just see. I'm like, boom. Is it set? Yes, this is it. Course. It's called fail faster. There we go. Uh, yeah, so it's just like, it's one of those things that, I mean, if I were an archeologist, it's like this is the kind of discovery I'd want to make because you can learn so much about how design is being valued by like, just the scaffolding. It's like, well, the building didn't survive, but we have the scaffolding and we know a lot about how people thought about building based on how they built their scaffolding. [inaudible] okay. Okay. Cool. All right, excellent. Um,

Fail Faster

Speaker 2: 01:13:21 so let's see. I think you've already talked, do you want to expand at all

on, um, how you organize or analyze, um, that play testing data into a meaningful format for, um, future iterations? Right.

Speaker 1: 01:13:37 Um, you like band upon there? No, it's, it's, yeah, it's, uh, the, the

parts that aren't rigorous or chaotic is how I'd like, I mean, all of that, all of those essays, like, I mean, I can't hold them all in my head, so I'll sometimes I'll write like little lit reviews for myself as sort of fucking academic, but you

Qualitative data is, like, hard. Writes lit reviews of his playtesters' essay responses

know, I'll have like, I'll like have all these plaintiffs reports and so I will write myself like summaries to just kind of keep things on task to kind of handle it. Because, you know, handling qualitative data is hard. Right? Any kind of like meaningful, I mean, it's, it's like in some ways it's the most useful. Uh, but it, it, it can't be like I can't make a graph of it or anything like that. Um, so mostly I just talk about it and I will even, like I'll, I'll have, um, sometimes I'll have a little develop meetings in my office and I will print out playtests reports and like set them around the table with my developer, with my publisher and other, there'll be humans in the room too.

Speaker 1: 01:14:35 But as we're talking, I will kind of like move those pieces of paper

Some games harder to find the general point of stasis

into the table and be like, okay, now like Grayson's group and Tommy's group said this and they're kind of arguing like, you know, or I'll start a development group or started developing meeting and say like, okay, my play testers are fighting right now. This is actually a very common thing with, with premiere. Um, premier is one of the hardest developments I've ever done. And it was principally because, um, everybody had different opinions about what the problems with the design were and different solutions. So there was like, no, you're in rhetoric, right? Yup. Yup. There was no, like, we couldn't even get to the lowest point of stasis. Okay. So it was like, there was, there was

disagreements about fact. So like not only could we not arrive to a general point of status, we couldn't even hardly climb up the tree. Um, does that make sense?

Speaker 2: 01:15:23 Yeah. How do you, how do you handle that?

Speaker 1: 01:15:26 Um, you just, I've actually just had to make hard calls and say like, I

agree with them. I disagree with you guys. Okay. Um, it was fine. Everyone's a professional so we don't, we didn't get to, but it was, it was vexing. I mean, it was really like, it was the weirdest development because if I were to measure my changes as a function of like word count, they were very, very small. Um, but they were the most like bitter a changes because just there were some real debate about like what the second edition should look like. Um, yeah. So I mean, it was, it was, it was it w and what ended up happening is I kind of like, I can't remember, I wrote this down if I just had an a meeting where I g I gathered my, like core three or four groups of protestors and said, oops, excuse me, sorry. And said 'em. I think the game looks like this and there are these other things that we could have answered with this game, but that's a future project.

Speaker 2: 01:16:35 All right. I think that pretty much covers all the questions that I have.

Um, is there, um, are there any of the, uh, play testing data collection? Um, are there any materials that you could send my way? A, some like an example materials of um, uh,

Speaker 1: 01:16:54 sure did you, here's where I would ask you to do, could you send me

an email with everything that you might want? And then what I will do is kind of like go through it like a to do list and see what I can find. Um, this week is exceptionally, but if you just like send to me and if I don't respond, just keep bothering me. I won't be upset and I will, uh, I will get the, I, I'll, I'll turn it over. All kinds of stuff.

Speaker 2: 01:17:18 Is that, is it better to pass to you on Twitter or email,

Speaker 1: 01:17:21 email, email now? Yeah, it's, everything is a mess right now because we're just like, we just hired up at work. There's all these other things that are spinning in the air plus the move plus the arrival of kid three in a month. Um, no, you are, I promise it's not because they hate you if I don't respond to an email in a week or two. Um,

Speaker 2: 01:17:41 well I know this is all like for game designers, it's a very busy time of

the year,

Speaker 1: 01:17:45 right? Yeah. And I, and I'm not actually going to gen con, but I am

helping the team get ready for Gen con because the kid comes early. I don't want to be in the difference.

Speaker 2: 01:17:53 Yeah, no, that makes sense. Yeah, sure. I'll, I'll send, I'll draft up a list of different materials that might be useful and then anything that you have that isn't a terribly time consuming for you to, to procure. Right. Uh, you know, if there's something that is just like, man, this is going to take me awhile to get through. Don't worry about it. I know that you're really busy right now.

Speaker 1: 01:18:11 Well, yeah, I would be happy to turn over just lots and lots, lots of stuff. That'd be wonderful.

Speaker 2: 01:18:17 Okay, great. Well then I think that's all I need for me right now. I believe, if I'm remembering correctly, you already sent the consent form. Um, so, uh, yeah, I'll send you a follow up email sometime later today and we're going to get it on the road up to Wisconsin pretty soon. Um, so I'll probably just draft that in the car. And then joy Wisconsin, it's a little oh yeah, I, I, I always miss it. I, I'm a Wisconsin native, so you already know all the good things. Yup. Yeah, we're going up to visit family and then, uh, go up north for a little bit. Excellent. Alright. So,

Speaker 1: 01:18:48 well if you make it all the way to the twin cities, you're always welcome. I'm always welcome. I happy to buy your copy.

Speaker 2: 01:18:54 Oh, excellent. All right, well that's, uh, that's actually a, uh, one of the places that's on my, uh, my list of for, for job market is I would love to end

up in the twin cities. So I love to hear that. It sounds, it sounds like there's a lot of game design happening there. Um, so it'd be a good a, it'd be a locate good location where I wouldn't have to travel too much to, uh, get in touch with designers physically. So, uh, thank you very much, Tony. This was fun. All right. Thank you so much for your time. I really appreciate it.
Cool. Alright, bye. Alright, bye.

A Manual on Manuals

A Primer on Document Design Best Practices for Board Game Designers

by Tony Bushner

A Manual on Manuals:
A Primer on Document Design Best Practices for Board Game Designers

A Manual on Board Game Manuals

Overview

This book contains my best attempt at consolidating the collected wisdom from twelve board game designers that I interviewed as part of my dissertation study on the subject of writing board game manuals. Whether you're a new designer trying to create your first game or a seasoned designer who is interested in improving your manual-writing chops, there is content here that should benefit everyone. This manual is broken up into four chapters:

Preparing to Write the Rulebook

- The Dual-Purpose Document: How Many Rulebooks Do You Need?
- Organization & Essential Components of a Rulebook
- When Do I Write My Game Manual?
- Planning for Printing

Writing Accessible Rules Text

- Tone/Theme
- Write Simply and Be Consistent
- How Much Detail Is Too Much?
- Examples
- Repetition
- Your Manual Is Not a Strategy Guide

Document Design Best Practices

- Give Your Readers Room to Breathe
- Headings, Subheadings, & Text Formatting
- The 2-Column Layout
- Splitting Content and Orphans
- Dual-Coding Information

Concluding Thoughts

Ch 1: Preparing to Write the Rulebook

This chapter covers basic considerations for drafting a rules manual that you should address as you begin to design your game or start drafting the official rules document for playtesting.

The Dual-Purpose Document: How Many Rulebooks Do You Need?

If you're the person who teaches new games to your gaming group (and if you're designing a game, that is likely the case) you're already familiar with the many uses of the board game rulebook. First and foremost, the rulebook is a document **read front-to-back** that teaches players how to play your game. It should be arranged in a way that gives a bird's eye view of the game and works its way down to the particulars of how to play.

But it is also a document that is used as a **reference guide** for when players forget a rule or require clarification on how different rules interact with each other. Designing a single document for these two very different uses is a difficult—but not impossible—endeavor.

Recently, some designers have opted for producing multiple manuals to attend to these different use-cases. *Root*, for example, has three rules documents:

1. **Learning to Play**: a document that gives a more conversational, narrative account of how the game is played. It is structured like a "standard" board game rulebook.
2. **The Law of Root**: a heavilly-structured rules compendium, organized by topic with enumerated headings, subheadings, and rules.
3. **Turns 1 & 2 Example Walkthrough**: a single-page document that explains the individual actions each faction might take on a hypothetical first two turns of the game. This document only covers rules/actions directly relevant to what happens in the first two turns.

Other Notable Examples: *New Angeles* (Learn to Play + Rules Reference), *Summit* (Cooperative Rulebook + Competitive Rulebook)

However, printing multiple rulebooks does **increase the per-unit cost of your board game**, and some designers are not willing to incur the extra cost of designing, printing, and assembling extra rulebooks for their games. If you decide to only produce one rulebook, I suggest checking out **Chapter 3**, especially the sections on **Headings, Subheadings, & Text Formatting** and the section on **The 2-Column Layout**. These parts in particular will help you design a rulebook that best accommodates readers who need to use your rulebook as a reference document.

Ch 1: Preparing to Write the Rulebook

Organization & Essential Components of a Rulebook

While no two rulebooks are the same, there is a general organizational flow that moves from general to specific in all good rulebooks. Below is a run-down of the essential components of a rulebook and how they are generally organized (Note: these guidelines are for a standard, singular rulebook or a "How to Play" guide. A different organizational structure may be more atppropriate for a separate "Rules Reference" document):

1. **Intro/Overview/Worldbuilding**
   The introduction to the rulebook should give a general overview of the game that will give the reader an idea of the theme, goal, and basic gameplay loop that will all be described in more detail later on in the rulebook. You may also use the first section of the rulebook to "set the stage" for the game, by providing a short narrative about the world or activities your game depicts.

2. **Components**
   A full accounting of all game components that one should find in the box. Where possible, include pictures of those components and label them accordingly. This will help readers understand the difference between distinct components that may look similar but have different mechanical purposes (e.g., two different types of cards).

3. **Objective/Goal**
   Players need to understand the goal of the game as soon as possible, as it helps them contextualize the rest of the actions they take and the impact those actions will have on their performance by the end of the game. Use more detail describing the goals of the game in this section than you used in the first section (overview).

4. **Setup**
   Walk your players through how to get their game space set up. Think of this as "setting the stage" with your props and scenery. It is often helpful when learning a game to lay out the initial game state and practice moving pieces around to get a feel for how the game is played, so the setup should be established before going into the details of what happens on any given turn. When possible, include a picture of the game to help reinforce the connection between different game pieces and their names.

5. **Gameplay**
   This is likely the lengthiest part of the manual, as it breaks down all of the actions that one could/should take on their turn, in the order in which those actions should be taken. If your game has different "phases," always list them in the order that players will play those phases, so one can play a sample turn by moving through your instructions one-by-one. Whether players can take actions in any order they choose or only in a very specific order, draw attention to this before moving on to describing those actions.

6. **Game End Conditions/Scoring**
   As much fun as an infinitely-long game may be to some players, eventually all good things must come to an end. Make sure that you describe both the metrics that must be met to trigger game end (e.g., a specific number of rounds, the depletion of certain resources, etc.) AND how the winner(s) of the game is determined. Consider adding additional rules to break ties if two players have the same score or reach the end state at the same time.

7. **Optional Content**
   Sometimes there are pieces of information that don't fit particularly well into any given section or there may be unintuitive interactions between rules. The end of the document is where you want to cover frequently asked questions, rules variants for changing up how the game is played, and/or provide a reference guide to remind players how to play.

   i. FAQs: The easiest way to populate this optional section is to take notes on what rules-related questions tend to pop up during playtesting. Pay attention to places where players tend to get a bit confused. In a perfect world, a rulebook should be able to account for most edge cases, but there will usually be sticking points that trip up your players. The FAQ is useful but should not be used as a crutch for overcomplicated rules interactions.

   ii. Play Variants: Adding in a few different rules variants can be a great way to make your game more challenging/interesting or extend the life of the game. This is where you would add some advanced rules for experienced players who want a greater challenge. If your game requires a different setup or set of rules for 2 players, this can be a good place to describe those changes.

   Note: *Make sure you give players notice of 2-player variant rules early on in the rulebook. Nothing is more frustrating than thinking you have the game ready to go and then realizing that there are a bunch of changes that need to be made to accommodate your number of players. When possible, try to weave in 2-player variant rules as special notes in the setup, gameplay, and game end conditions sections.*

   iii. Quick Start Guide: The back cover of your rulebook is an excellent place to summarize the very basics of your rules as a reference guide for experienced players who may need a quick refresher or new players that are struggling to remember what they can do on their turn. If your rulebook is on the longer side, you might consider including page numbers for each rule listed in the Quick Start Guide in case your players need to look up more details.

On a related note, a glossary of all icons used in the game can also be effective back-cover content. *Gloomhaven* is an excellent example of an icon glossary with page notations that acts as a sort of visual reference guide for the rulebook as a whole. If your game relies on memorizing many icons, this may be a better fit for your back cover.

Ch 1: Preparing to Write the Rulebook

When Do I Write My Game Manual?

There is no one right time to start writing your manual: some designers will start writing it out as soon as they have a first draft of the game, while others prefer to wait until they are ready to do cold playtesting (that is, playtesting the game without the designer verbally explaining the game). Either way, it is worth keeping **design notes on your game's rules** from the very beginning, so you can revisit old ideas that may not have worked at the time but might work after some tweaking.

Writing a full game manual as soon as the game is ready to play has some distinct advantages, however. First, it forces you to **account for all of the details of the game** from setup, to what players do on a turn-by-turn basis, to the end game trigger/scoring. By putting the rules down in words, it forces you to attend to some of the details that you may gloss over in your mind or while experimenting with very early prototypes. If you choose to go this path, it is worth **saving a new copy of your rules each time** you make a change and **keep a changelog** that shows what was changed from version to version. Board games are complex systems, and it is incredibly easy to change ta rule in one place but not make adjustments to all of the other rules that rely on the changed rule or to the number of components you need to play the game. The downside, of course, is that this **creates extra paperwork**, and some designers might not find that worth their time.

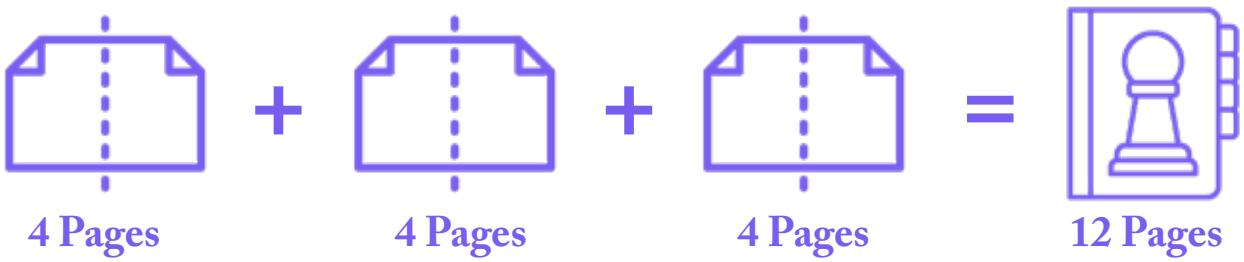
If you wait on writing an official rules document but instead just keep basic notes on the game, it does leave you **more flexibility to make drastic changes** to the rules. Sometimes, the effort that goes into writing an early rules document might make you feel "locked in" to that first draft because of the "sunk cost fallacy"—our natural tendency to continue trying to fix a broken system when we've already invested resources into it. Keeping basic design notes but not investing the time and energy into writing out a full set of instructions makes **big, sweeping changes to your game easier to implement**. However, this approach makes it harder to see how bigger changes might affect the system as a whole, since you don't have to contend with fleshing out all the details on the page.

Experiment with both approaches and find one that works best for you! Remember that everyone's design process is going to be unique.

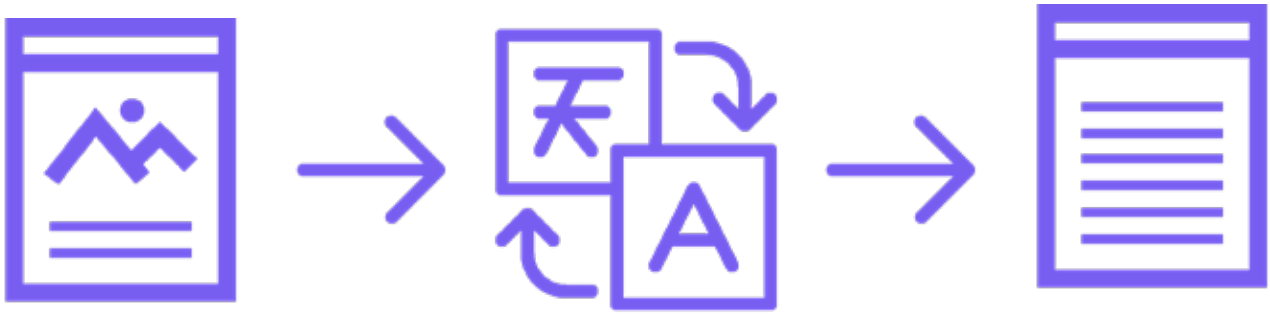
Ch 1: Preparing to Write the Rulebook

Planning for Printing

There are a few considerations that you should keep in mind when it comes to laying out your rulebook for print. Seasoned designers will know this from experience, but new designers, take note: **rulebooks are always printed in sets of four pages**. When rulebooks are manufactured, they are printed on the front and back of large sheets, which are then collated, folded in half, and bound together. As you finish writing your final rulebook copy, pay close attention to how many pages your manual takes up and make adjustments accordingly. If you have extra space, consider finding places where you can add more visual aids or diagrams to fill out your rulebook to a multiple of four pages.



It is also a good idea to find space for purely decorative (as opposed to functional) art in your rulebook, especially if you are considering an international release of your game at some point in the future. The translation of your rules into a new language may require more space than you had initially allotted and including flavor art in your first rulebook will give translators something superfluous to remove to free up more room for translated text, if needed.



Ch 2: Writing Accessible Rules Text

This section provides some tips on what to consider as you write down your rules. These tips focus on writing simple, clear instructions that are engaging to read…well, as engaging as a manual can be.

Tone/Theme

Striking the right tone for your rulebook can be a tricky endeavor. A little bit of thematic language in your instructions or **injecting some humor into your manual** can be a great way to keep readers engaged and help them enjoy the experience of learning your game. Games are supposed to be fun and having a rulebook that reads like a car manual might put your reader right to sleep before they have a chance to try your amazing game. However, too many clever quips or attempts to make your rules sound more thematic can also **impede an impatient reader** who just wants to finish reading the rules so they can play. Even worse is trying to wade through a bunch of lame jokes when you're just trying to find the one rule that clarifies a question at the table. How are we to strike a balance?

You can do a lot of the work of **building theme into your rulebook** by doing some worldbuilding in the Intro/Overview section at the beginning of the rulebook. This can be a great spot to let some of your creative writing skills shine as you set the stage for the game and help familiarize your players with the world they'll be inhabiting on the board. As for the rest of the rulebook, you'll want to first and foremost make sure that your instructions are **clearly stated** and that any kind of **thematic language doesn't obscure meaning in any way.**

For example, if you're making a game about pirates, you could start the section in your rulebook about gaining doubloons at the beginning of your turn like this: "At the beginning of your turn, your pirate crew shakes down the owner of the local tavern: take 3 doubloons from the Shanty Tavern space on the board and put them in the Hold space on your Ship Board." The narrative element at the beginning of the sentence helps players remember what they do at the start of their turn because it is no longer an arbitrary action of taking tokens and moving them from one part of the board to another; **you've turned a simple action into a small story about pirates doing pirate things**.

This is one of many reasons why picking an appropriate theme for your game is so important! All board games are variations on moving little bits of cardboard and plastic around a table, at their very core. **But the stories we tell about those bits is what breathes life into the game**. Likewise, a compelling theme that gives narrative structure to your game will make the rules that much easier to understand and remember. Our minds our built to learn and share stories; use this to your advantage!

Ch 2: Writing Accessible Rules Text

Write Simply and Be Consistent

One of the more difficult parts of writing good instructions is keeping them **simple enough to understand and memorize**. Board games tend to be fairly complex systems of mechanics, and it is your job as a designer to make that complex system accessible to your reader, who will likely have to teach the game to the rest of their gaming group. Try to keep your **sentences short and simple** to avoid forcing your players to parse complex sentences. When describing an ordered process, **consider using a numbered list instead of a paragraph**: this will help your reader follow along without risking losing their place. Give the tokens, cards, and other components names that are descriptive. Yes, it may be more thematic to say that players in a game about diplomacy exchange "Political Influence" with each other, but if that Political Influence is represented by a cardboard token, it's much clearer to call it something like an "Influence Token." By giving components a name that **calls attention to its purpose and its physicality,** it will be far less confusing to your players in the long run.

Most importantly, consistency is key when writing your manual. If you call something an Influence Token at the beginning of the rulebook, make sure that you're **using that same phrase every time** you talk about that component or resource in the rest of the rulebook. The same principle applies to keywords: if you use a **keyword as shorthand for a process**, make sure that you define that process the first time you use the keyword and then **stay consistent with your use of that keyword**. It can also be helpful to use a bold or different colored font to call attention to the fact that a word is a special keyword, so your readers know that it has meaning beyond its basic definition.

How Much Detail Is Too Much?

If you're passionate about board games, chances are that you've read a few rulebooks that skimp on the details a bit too much. This can be incredibly frustrating for the reader, especially if they're trying to figure out a particularly complex interaction between the rules and, say, the text on a card. Conversely, if you go into too much detail in your rulebook, it will quickly become long and bloated, making it more difficult for your reader to learn how to play the game in the first place.

At a certain point, you have to **make some assumptions about what your players already know,** what they can infer from their experience, and what you put down in the rulebook. For simple tasks that are common among games, such as rolling dice or drawing a card from the deck, you probably don't need to specify that one needs to pick up, shake, and throw the dice or take the card from the deck and place it in one's hand. However, there are some situations that do require a bit more detail to understand. For example, if a player plays a card, **what happens to that card after they resolve the effect on it**? Does it stay in play? Does it get sent to a discard pile? Do they remove it from the game? The assumptions players make about what to do next will be influenced by what they've done in the other games that they have played in the past. If you don't specify, that can lead to some interesting (if not ideal) interpretations of your rules and may unintentionally break your game.

Ch 2: Writing Accessible Rules Text

The best way to determine if your rules are specific enough is through **lots and lots of cold playtesting**, where players learn the game by reading the rulebook instead of being instructed by someone who already knows how to play. Watching out for moments of struggle or confusion or moments where playtesters inadvertently play the game incorrectly can give you good insights into what areas of the rulebook will require further specificity or revision.

Sometimes, though, a mechanic might be too complex to describe simply or in a way that players won't struggle to understand. What to do then? As difficult as it may be, sometimes that mechanic might have to be cut from the game if you are struggling too hard to explain it simply. After all, no one will be able to experience the glory of your unique game if they can't figure out how to play it. **Sometimes, simplifying the game is the best way to simplify your instructions**. Be open to this possibility, tragic though it may be. Your game may well be better for it in the long run.

Examples

Some people learn best by being told what to do; others need to be shown. You can accommodate both styles of learners by including lots of examples in your rulebook. For this, you have a few distinct options on how to approach including examples:

- After every step or phase, provide a **diagram** and some text explaining the concept you're illustrating in that section
- If your game has instructions for calculating players' scores, provide an **example scoresheet** and player board to show them how to correctly tally their points
- Include a few **example turns for multiple players** so readers can understand how all of the steps or actions one takes work together and what the consequences of the decisions they'll make might be

Repetition

If you are referring back to a rule covered previously in the manual, it is often helpful to repeat crucial information that is necessary to understand that rule in a new context. This serves a dual-purpose:

- It **refreshes your reader's memory** so they can understand how different rules or mechanics might affect each other
- It lowers the chances that a player will **miss out on learning a rule** that they may have glossed over

Of course, don't go overboard with repeating yourself, otherwise you will encourage readers to start skimming. At that point, you run the risk of players missing out on crucial new information. Only try to **repeat yourself when you feel it is necessary to remind players of something important**, but also don't be afraid to repeat yourself.

Ch 2: Writing Accessible Rules Text

Your Manual Is Not a Strategy Guide

It can absolutely be helpful to tell your readers how their decisions will affect the game state, so they can better understand the system that you've created. However, don't let little hints about the consequences of their actions turn into a full-blown strategy guide. Half the fun of learning a new game is exploring how one's actions affect the game-state. Don't take that fun away from your players! Give them just enough of a peek under the hood to spark their curiosity but let them explore on their own.

Where possible, give your readers hints about how their actions might affect the game state. For example, if a player takes an action that allows them to collect wood from a space on the board, it might be helpful to tell them what wood is used for. This helps your reader understand why that action may be important as they plan for future turns. You would not, however, tell your player when the best time to take wood from the pile would be. Trust that your players will figure that out for themselves, so long as they know why wood is important to affect change on their end goals.

Place your meeple on the wood hex to claim any wood tokens on that space.

Take the wood tokens and place them on your player board. They can be used to build huts and other buildings on future turns.

Ch 3: Document Design Best Practices

This chapter will cover basic document design best practices for your rulebooks informed by my interviews with board game designers and my three years of experience as a technical writing instructor and scholar. You can use any document design or word processing program that you're comfortable with to create your rulebook, but it is important to note that you will likely have a harder time making a professional-looking rulebook in a basic word processor like Microsoft Office as opposed to a dedicated document design program like Adobe InDesign. **Document design programs will give you much more flexibility and control over the appearance of your document**, and these programs are worth investing the time and energy into learning.

Give Your Readers Room to Breathe

If you've been on the Internet at all in the past decade, you're familiar with the phrase "**wall of text:**" when a reader sees a large block of unbroken text, it can be incredibly daunting to approach and often causes readers to disengage before they barely start reading. The same holds true in written documents. While it may be tempting to add in ALL THE DETAILS to describing how a game mechanic works, there are **diminishing returns to this practice if players skip over those details** (which increases the odds that they miss an important point!) Consider using short paragraphs of text and breaking up instructions with bullet points (for listed items where order does not matter) or enumerated lists (where the order of the information is important).

On a similar note, it can be tempting to try and cram as much text onto the page as possible to save on printing costs. After all, the more pages you need to print per rulebook, the more your per-unit cost increases. However, it is worth considering how a page FULL of text without any blank space or art will appear to your readers: just as long, unbroken paragraphs can be intimidating, a page covered in short paragraphs without any space in between them will be similarly daunting. Give your text room breathe by:

- Providing **blank space** around your text and images
- Breaking your text into **two columns** to reduce line length and facilitate quick scanning
- Using **example diagrams** to help divide up the page

Headings, Subheadings, & Text Formatting

As both a teaching document and a reference document, the board game rulebook benefits in a variety of ways from judicious and consistent use of **text formatting to help organize the document.** Using different typographic styles for your headings, subhetadings, and to call out key words or phrases can go a long way in making your rules document more usable. Use a larger, bolded, sans serif font (like Helvetica or **Futura**) for your headings, and a smaller version of the same font for your subheadings. Some designers find it helpful to use an accent color for their (sub/)headings to further distinguish them from the main body text. For contrast, use a basic 12-point serif typeface (like Times New Roman or Georgia) for all body text in your rulebook.

For example, I've established the following visual hierarchy for this book:

Chapter Title
Heading
Main Text

Note: *Try not to use more than two fonts throughout your rulebook. Otherwise, you will see diminishing returns as it is harder to establish consistent patterns between typeface and the purpose of the text associated with it.*

In terms of its purpose as a teaching document, establishing good visual hierarchy (i.e., using different typefaces to help organize information) helps your readers more easily memorize the contents of your instructions. Clear headings and subheadings make it easier for readers to **"chunk" pieces of information together in their minds**, as it provides a ready-made organizational structure as they read. In addition, a descriptive heading will prime your reader to anticipate the content that follows, making it easier for them to understand that content when they read it for the first time.

As a reference document, clearly distinguishable headings and subheadings facilitate **easier skimming of the text**. If your (sub/)heading texts are sufficiently distinct from the main body text, they act as signposts for your readers, allowing them to skim the rulebook for a descriptive label that will hopefully contain the information they are searching for.

Note: *This is why short but descriptive headings and subheadings are important. Make it clear to your reader what they should expect to find under the heading.*

Ch 3: Document Design Best Practices

The 2-Column Layout

Breaking the page up into two columns of text/images instead of having each line scroll across the whole page has a number of different benefits and opens up some useful design options. One option is to use **both columns to provide instructional text and images**. This usually allows for more words per page, and the shorter line-lengths means your text will be easier to read quickly, as the jump from one line to the next does not necessitate quite so much horizontal scanning to get back to the start of the next line. Do take note that if you're drafting your rules in a single-column layout and then importing them into a 2-column layout, **your paragraphs will appear longer on the page,** which may make them look more intimidating to your readers. Brevity is important for this layout.

Another popular approach to the 2-column layout is to use one wider column for the main text of the instructions and use the **second, shorter column as a place to give a short summary** of the more verbose rules in the first column. The rules/summary 2-column layout is fantastic for attending to the how to play/rules reference dual-purpose of the rulebook:

- The left column gives all of the **necessary details** one needs to learn how to play the game for the first time

- The right column provides a **quick summary** for those who need a refresher. This column also acts as an additional signpost for helping readers find the chunk of verbose text that may contain the extra-detailed information they need to answer a rules question. It also allows readers to review what they just read by going over the summary column.

2-Column Layout Advantages:
- more words per page
- shorter line length = easier to skim
- makes it easier to pair images with text

Summary Column Approach:
left column contains full text explanation and right column contains a summary.

Summary Column Advantages:
- highlights most important information
- creates signposts to help locate full rule text
- helps new players review what they just read

Ch 3: Document Design Best Practices

Splitting Content and Orphans

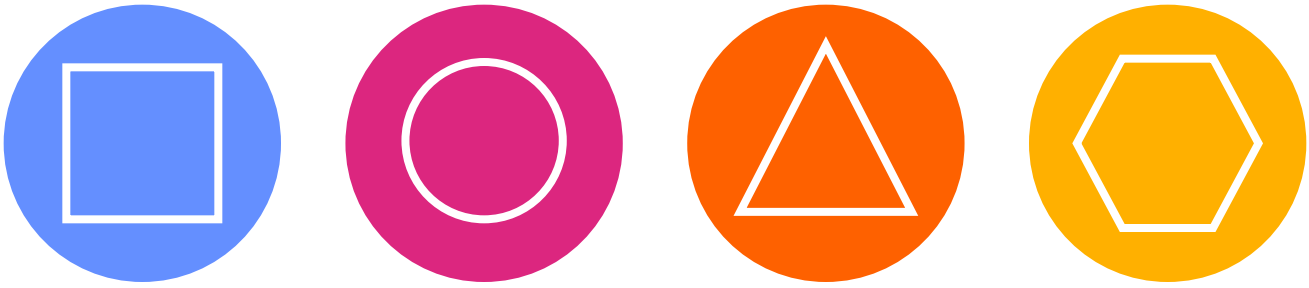
As you're laying out your rulebook, make sure that any visual aids that you use are on the same page as the written content that they support. There is nothing more frustrating than having to flip between two different pages to reference an image or chart that is being described on another page.

Also, keep an eye out for any areas where a single word is the only item on a new line of text (this is called an "orphan" in design parlance). Not only do these take up unnecessary space in the document, but they're also not aesthetically pleasing. The same goes for the last line or two of a section spilling over onto the next page: if possible, try to rework your text to avoid this.

Dual-Coding Information

One of the most important things you should consider while writing your manual and designing your game assets is making sure that color is never the only way you communicate a piece of information. For example, if you are using color to communicate the faction that a card belongs to, you should pair that color with a unique symbol to dual-code that information. If you rely solely on color to communicate a piece of information, you will make your game more difficult to play for people who have issues differentiating between colors.

Accessibility considerations such as this not only make your game more accessible to those with particular needs but also make your game generally more playable in a variety of circumstances. Sometimes people like to play board games in pubs, cafés, and other dimly-lit establishments; in those circumstances, colors may be more difficult to identify due to the lighting conditions, and the game would absolutely benefit from icons or other forms of dual-coding information.



Ch 4: Concluding Thoughts

I hope that you found the contents of this manual useful as you endeavor to write clear, concise, and engaging instructions for your game. Be prepared to draft, revise, and test your manual as much (or more!) than the game that it supports. The extra effort will pay off, I promise. The manual is often the first thing that your primary consumer will see when they open the box of their shiny new game, and a well-written, accessible manual will be sure to leave your reader with the feeling that they are being cared for and respected. They are your ambassador to the rest of their gaming group, and their enthusiasm and skill in teaching your game will make it more likely that others will purchase a copy for themselves or a loved one.

I'm sure that the game that you're designing is going to be fantastic, and I hope that you find this manual helpful in crafting a rulebook that welcomes players into the wonderful world that you've created.

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