

TENTH ANNIVERSARY

The Art of Game Design

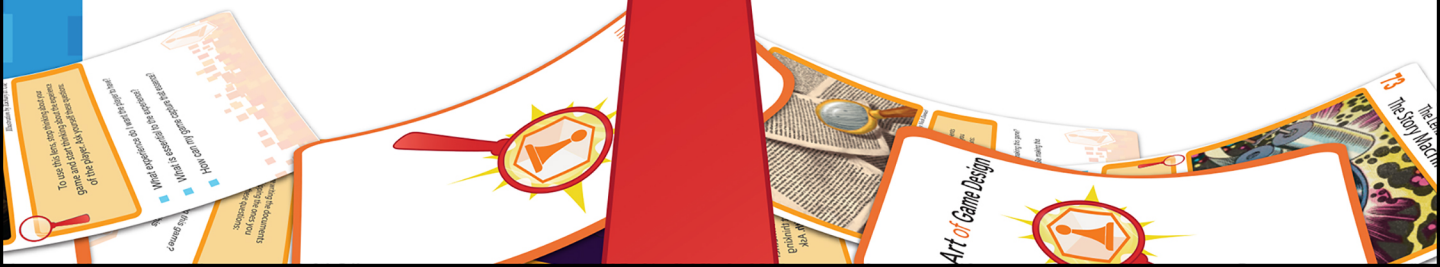
A Book of Lenses



3rd
Edition

Jesse Schell

CRC CRC Press
Taylor & Francis Group



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who always listens*



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*I will talk to you of art,
For there is nothing else to talk about,
For there is nothing else.*

*Life is an obscure hobo,
Bumming a ride on the omnibus of art.*

—Maxwell H. Brock



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HELLO

Hello there! Come in, come in! What a nice surprise—I had no idea you would be visiting today. I’m sorry if it is a little messy in here, I’ve been writing. Please—make yourself comfortable. Good, good. Now let’s see... where should we begin? Oh—I should introduce myself!

My name is Jesse Schell, and I have always loved designing games. Here’s picture of me:



I was shorter then. Since that picture was taken, I’ve done a lot of different things. I’ve worked in circuses as a professional juggler. I’ve been a writer, comedian, and magician’s apprentice. I’ve worked at IBM and Bell Communications Research as a software engineer. I’ve designed and developed interactive theme park rides and massively multiplayer games for the Walt Disney Company. I’ve started my own game studio, and become a professor at Carnegie Mellon University. But when people ask me what I do, I tell them that I am a game designer.

I mention all this only because at various times in this book, I will be drawing examples from these experiences, since every single one of them has taught me valuable lessons about the art of game design. That might sound surprising now, but hopefully, as you read this book, it will help you see the ways that game design meaningfully connects to the many experiences in your own life.

One thing I should clarify: While the goal of this book is primarily to teach you how to be a better videogame designer, many of the principles we explore will have little to do with videogames specifically—you will find they are more broadly

applicable than that. The good news is that much of what you read here will work equally well no matter what kind of game you are designing—digital, analog, or otherwise.

What Is Game Design?

As we begin, it is important for us to be absolutely clear about what is meant by “game design.” After all, it is what the rest of the book is about, and some people seem a bit confused about it.

Game design is the act of deciding what a game should be.

That’s it. On the surface, it sounds too simple.

“You mean you design a game by just making one decision?”

No. To decide what a game is, you must make hundreds, usually thousands of decisions.

“Don’t I need special equipment to design a game?”

No. Since game design is simply decision making, you can actually design a game in your head. Usually, though, you will want to write down these decisions, because our memories are weak, and it is easy to miss something important if you don’t write things down. Further, if you want other people to help you make decisions, or to help build the game, you need to communicate these decisions to them somehow, and writing them down is a good way to do that.

“What about programming? Don’t game designers have to be computer programmers?”

No, they don’t. First of all, many games can be played without the use of computers or technology; board games, card games, and athletic games, for example. Secondly, even for computer games or videogames, it is possible to make the decisions about what those games should be without knowing all the technical details of how those decisions are carried out. Of course, it can be a tremendous help if you do know these details, just as being a skilled writer or artist can help. This allows you to make better decisions more quickly, but it is not strictly necessary. It is like the relationship between architects and carpenters: an architect does not need to know everything the carpenter knows, but an architect must know everything the carpenter is capable of.

“So, you mean that the game designer just comes up with the story for the game?”

No. Story decisions are one aspect of a game design, but there are many, many others. Decisions about rules, look and feel, timing, pacing, risk-taking, rewards, punishments, and everything else the player experiences is the responsibility of the game designer.

“So the game designer makes decisions about what the game should be, writes them down, and moves on?”

Almost never. None of us has a perfect imagination, and the games we design in our heads and on paper almost never come out quite the way we expected. Many decisions are impossible to make until the designer has seen the game in action. For this reason, the designer is usually involved in the development of a game from the very beginning to the very end, making decisions about how the game should be all along the way.

It is important to make the distinction between “game developer” and “game designer.” A game developer is anyone who has any involvement with the creation of the game at all. Engineers, animators, modelers, musicians, writers, producers, and designers who work on games are all game developers. Game designers are just one species of game developer.

“So, the game designer is the only one allowed to make decisions about the game?”

Let’s turn that around: Anyone who makes decisions about how the game should be is a game designer. Designer is a role, not a person. Almost every developer on a team makes some decisions about how the game will be, just through the act of creating content for the game. These decisions are game design decisions, and when you make them, you are a game designer. For this reason, no matter what your role on a game development team, an understanding of the principles of game design will make you better at what you do.

Waiting for Mendeleev

The voyage of discovery is not in seeking new landscapes but in having new eyes.

—Marcel Proust

The goal of this book is to make you the best game designer you can be.

Unfortunately, at present, there is no “unified theory of game design,” no simple formula that shows us how to make good games. So what can we do?

We are in a position something like the ancient alchemists. In the time before Mendeleev (men-duh-lay-uv) discovered the periodic table, showing how all the fundamental elements were interrelated, alchemists relied on a patchwork quilt of rules of thumb about how different chemicals could combine. These were necessarily incomplete, sometimes incorrect, and often semimystical, but by using these rules, the alchemists were able to accomplish surprising things, and their pursuit of the truth eventually led to modern chemistry.

Game designers await their Mendeleev. At this point we have no periodic table. We have our own patchwork of principles and rules, which, less than perfect, allows us to get the job done. I have tried to gather together the best of these into one place, so that you can study them, consider them, make use of them, and see how others have used them.

Good game design happens when you view your game from as many perspectives as possible. I refer to these perspectives as **lenses**, because each one is a way of viewing your design. The lenses are small sets of questions you should ask yourself about your design. They are not blueprints or recipes, but tools for examining your design. They will be introduced, one at a time, throughout the book. A deck of cards, with one card summarizing each lens, has been created to accompany this book. It is available as a free smartphone app (search for “deck of lenses” on iOS or Android), and can also be purchased as a physical deck of cards (search for “deck of lenses” on Amazon), to make it easy to use the lenses while you are designing. Visit artofgamedesign.com for more information, and a free third edition booster pack.

None of the lenses are perfect, and none are complete, but each is useful in one context or another, for each gives a unique perspective on your design. The idea is that even though we can't have one complete picture, by taking all of these small imperfect lenses and using them to view your problem from many different perspectives, you will be able to use your discretion to figure out the best design. I wish we had one all-seeing lens. We don't. So, instead of discarding the many imperfect ones we do have, it is wisest to collect and use as wide a variety of them as possible, for as we will see, game design is more art than science, more like cooking than chemistry, and we must admit the possibility that our Mendeleev will never come.

Focus on Fundamentals

Many people assume that to best study the principles of game design, one would naturally study the most modern, complex, high-tech games that are available. This approach is completely wrong. Videogames are just a natural growth of traditional games into a new medium. The rules that govern them are still the same. An architect must understand how to design a shed before she can design

a skyscraper, and so we will often be studying some of the very simplest games. Some of these will be videogames, but some will be far simpler: Dice games. Card games. Board games. Playground games. If we cannot understand the principles of these games, how can we have a hope of understanding more complex games? Some will argue that these games are old, and therefore not worth studying, but as Thoreau said, “We might as well omit to study Nature because she is old.” A game is a game is a game. The principles that make the classic games fun are the same principles that make the most modern games fun. The classic games have the added advantage that they have withstood the tests of time. Their success is not due to the novelty of their technology, which is the case with many modern games. These classic games have deeper qualities that, as game designers, we must learn to understand.

As well as a focus on classic games, this book will strive to deliver the deepest and most fundamental principles of game design, as opposed to genre-specific principles (“Fifteen tips for a better story-based first-person shooter!”), because genres come and go, but the basic principles of game design are principles of human psychology that have been with us for ages, and will be with us for ages to come. Well-versed in these fundamentals, you will be able to master any genre that appears, and even invent new genres of your own. As opposed to other books on game design, whose goal often seems to be to cover as much ground as possible, this book will not strive to cover ground, but to teach you to dig in the most fertile places.

And though this book will teach you principles you will be able to use to create traditional board and card games, it is very much slanted toward the videogame industry. Why? Because a game designer’s job is to create new games. The explosion of computer technology has allowed for innovation in the field of game design such as the world has never seen. There are more game designers alive today than have ever been alive in all of human history. Chances are, if you want to create games, you will be creating them somewhere on the cutting edge of this new technology, and this book is prepared to show you how to do just that, although most of the principles here will work just as well with more traditional game genres.

Talk to Strangers

Do not forget to entertain strangers, for by so doing some have unwittingly entertained angels.

—Hebrews 13:2

Game developers have a reputation for xenophobia, that is, fear of strangers. By this I mean not unfamiliar individuals, but rather unfamiliar techniques, practices, and principles. It almost seems like they believe that if it didn’t originate in the game

industry, it isn't worth considering. The truth is really that game developers are usually just too busy to look outside their immediate surroundings. Making good games is hard, so developers keep their heads down, stay focused, and get the job done. They usually don't have the time to seek out new techniques, figure out how to integrate them into their games, and take the risk that a new technique might fail. So, they play it safe, and stick with what they know, which unfortunately leads to a lot of the "cookie-cutter" game titles that you see on the market.

But to succeed, to create something great and innovative, you have to do something different. This is not a book about how to make cookie-cutter games. It is a book about how to create great new designs. If you were surprised by the focus this book places on non-digital games, you will be even more surprised to see how it uses principles, methods, and examples from things that aren't even games. Examples from music, architecture, film, science, painting, literature, and everything else under the sun will be pulled in. And why not? Why should we have to develop all our principles from scratch, when hard work we can use has been going on in other fields, sometimes for hundreds or thousands of years? Design principles will come from everywhere because design is everywhere, and **design is the same everywhere**. Not only will this book draw design inspiration from everywhere, it will persuade you to do the same. Everything you know and everything you have experienced is fair game at the game design table.

The Map

It does not make much difference what a person studies. All knowledge is related, and the man who studies anything, if he keeps at it, will become learned.

—Hypatia

Game design is not an easy subject to write about. Lenses and fundamentals are useful tools, but to truly understand game design is to understand an incredibly complex web of creativity, psychology, art, technology, and business. Everything in this web is connected to everything else. Changing one element affects all the others, and the understanding of one element influences the understanding of all of the others. Most experienced designers have built up this web in their minds, slowly, over many years, learning the elements and relationships by trial and error. And this is what makes game design so hard to write about. Books are necessarily linear. One idea must be presented at a time. For this reason, many game design books have an incomplete feeling to them—like a guided nighttime tour with a flashlight, the reader sees a lot of interesting things, but can't really comprehend how they all fit together.

Game design is an adventure, and adventure needs a map. For this book, I have created a map that shows the web of game design relationships. You can

see the complete map near the end of the book, but to see the entire map at once is confusing and overwhelming. Picasso once said, “To create, one must first destroy.” And so we will. We set everything aside, and begin our map as a blank slate. As we do this, I encourage you, too, to set aside your preconceptions about game design, so that you can approach this difficult but fascinating subject with an open mind.

Chapter 1 will begin by adding a single element, the designer. Successive chapters will add other elements, one at a time, gradually building up the complex system of relationships between designer, player, game, team, and client, so you can see how they fit together, and why they fit together the way they do. By the end of the book, you will have, both on paper and in your mind, a map of these relationships. Of course, the map on paper is not the important one—the important one is the one in your mind. And the map is not the territory. It will necessarily be imperfect. But hopefully, after this book helps to create a map of relationships in your mind, you will test your mental map against reality, altering it and augmenting it, as you find parts of it that can be improved. Every designer goes through the journey of building their own personal map of these relationships. If you are new to game design, this book should be able to give you the beginnings of your map. If you are already a seasoned game designer, I hope that this book can give you some ideas about how to improve the map you have.

Learning to Think

Every truth has four corners: as a teacher I give you one corner, and it is for you to find the other three.

—Confucius

What is Confucius talking about? Shouldn’t a good teacher show you all four corners, laying everything out plainly? No. To truly learn, remember, and understand, your mind must be in a state of questing, of seeking to find knowledge. If it is not in this state, a state of really wanting to deeply understand, the wisest principles will roll off you like water off a duck. There will be times in this book where things will not be laid out plainly—times where things are intentionally less clear so that when you do uncover the truth, it means something to you.

There is another reason for this sometimes cryptic approach. As discussed earlier, game design is not an exact science. It is full of mysteries and contradictions. Our set of lenses will be incomplete and imperfect. To become a great game designer, it is not enough to be familiar with the set of principles this book has to offer. You must be ready to think for yourself, to figure out why certain principles don’t work in certain cases, and to invent new principles of your own. We await our Mendeleev. Perhaps it is you.

Why I Hate Books

I hate books, for they only teach people to talk about what they don't understand.

—Jean-Jacques Rousseau

It is very important to have a balanced approach to study and practice.

—The Dalai Lama

Please do not think that reading this book, or any book, will make you into a game designer, much less a great game designer. Game design is not a set of principles, it is an activity. You could no sooner become a singer, pilot, or basketball player by reading a book than you could become a game designer. There is only one path to becoming a game designer, and that is the path of designing games—and more to the point, designing games that people really like. That means that simply jotting down your game idea isn't enough. You must build the game, play it yourself, and let others play it. When it doesn't satisfy (and it won't), you must change it. And change it. And change it again, dozens of times, until you have created a game that people actually enjoy playing. When you have been through this a few times, then you will start to understand what game design is. There's a saying among game designers: "Your first ten games will suck—so get them out of the way fast." The principles in this book will help to guide your designs, and give you useful perspectives on how to make better designs faster, but you can only become a good designer through practice. If you are not really interested in becoming a good game designer, put this book down now. It has nothing for you. But if you truly do want to be a game designer, then this book is not an end, but a beginning—the beginning of a continuous process of study, practice, assimilation, and synthesis that is going to last the rest of your life.

CHAPTER ONE

In the Beginning, There Is the *Designer*

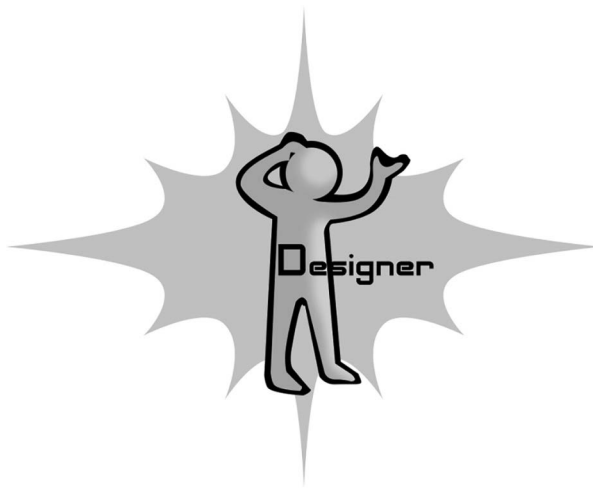


FIGURE
1.1

Magic Words

Would-be designers often ask me, “How do you become a game designer?” And the answer is easy: “Design games. Start now! Don’t wait! Don’t even finish this conversation! Just start designing! Go! Now!”

And some of them do just that. But many have a crisis of confidence and feel stuck in a catch-22: If only game designers can design games and you can only become a game designer by designing games, how can anyone ever get started? If this is how you feel, the answer is easy. Just say these magic words:

I am a game designer.

I’m serious. Say them out loud, right now. Don’t be shy—there’s no one here but us.

Did you do it? If so, congratulations. You are now a game designer. You might feel, at this moment, that you aren't really a game designer yet, but that you're just pretending to be one. And that's fine, because as we'll explore later, people become what they pretend to be. Just go on pretending, doing the things you think a game designer would do, and before long, to your surprise, you will find you are one. If your confidence wavers, just repeat the magic words again: **I am a game designer.** Sometimes, I repeat them like this:

Who are you?
I am a game designer.
 No, you're not.
I am a game designer.
 What kind of a designer?
I am a game designer.
 You mean you play games.
I am a game designer.

This game of confidence building may seem silly at first. But it is far from the silliest thing you will do as a designer. And it is terribly important that you get good at building your confidence, for doubts about your abilities will forever plague you. As a novice designer, you will think, "I've never done this—I don't know what I'm doing." Once you have a little experience, you will think, "My skills are so narrow—this new title is different. Maybe I just got lucky last time." And when you are a seasoned designer, you will think, "The world is different now. Maybe I've lost my touch."

Blow away these useless thoughts. They can't help you. When a thing must be attempted, one must never think about possibility or impossibility. If you look at the great creative minds, all so different, you will find they have one thing in common: they lack a fear of ridicule. Some of the greatest innovations have come from people who only succeeded because they were too dumb to know that what they were doing was impossible. Game design is decision making, and decisions must be made with confidence.

Will you fail sometimes? Yes, you will. You will fail again, and again, and again. You will fail many, many more times than you will succeed. But these failures are your only path to success. You will come to love your failures, because each failure brings you a step closer to a truly phenomenal game. There is a saying among jugglers: "If you aren't dropping, you aren't learning. And if you aren't learning, you aren't a juggler." The same is true for game design: If you aren't failing, you aren't trying hard enough, and you aren't really a game designer.

What Skills Does a Game Designer Need?

I have taken all knowledge to be my province.

—Francis Bacon

In short, all of them. Almost anything that you can be good at can become a useful skill for a game designer. Here are some of the big ones, listed alphabetically:

- **Animation:** Modern games are full of characters that need to seem alive. The very word “animation” means “to give life.” Understanding the powers and limits of character animation will let you open the door for clever game design ideas the world has yet to see.
- **Anthropology:** You will be studying your audience in their natural habitat, trying to figure out their heart’s desire, so that your games might satisfy that desire.
- **Architecture:** You will be designing more than buildings; you’ll be designing whole cities and worlds. Familiarity with the world of architecture, that is, understanding the relationship between people and spaces, will give you a tremendous leg up in creating game worlds.
- **Brainstorming:** You will need to create new ideas by the dozens, nay, by the hundreds.
- **Business:** The game industry is just that, an industry. Most games are made to make money. The better you understand the business end of things, the better chance you have of making the game of your dreams.
- **Cinematography:** Many games will have movies in them. Almost all modern videogames have a virtual camera. You need to understand the art of cinematography if you want to deliver an emotionally compelling experience.
- **Communication:** You will need to talk with people in every discipline listed here, and even more. You will need to resolve disputes, solve problems of miscommunication, and learn the truth about how your teammates, your client, and your audience really feel about your game.
- **Creative writing:** You will be creating entire fictional worlds and populations to live in them and deciding the events that will happen there.
- **Economics:** Many modern games feature complex economies of game resources. An understanding of the rules of economics can be surprisingly helpful.
- **Engineering:** Modern videogames involve some of the most complex engineering in the world today, with some titles counting their lines of code in the

millions. New technical innovations make new kinds of gameplay possible. Innovative game designers must understand both the limits and the powers that each technology brings.

- **Games:** Naturally, familiarity with games will be of great use to you, but not just familiarity with the kind of games you intend to create. Your knowledge of the workings of every kind of game from pin the tail on the donkey to *Portal 2* will give you the raw materials you need when you create new games.
- **History:** Many games are placed in historical settings. Even the ones placed in fantasy settings can draw incredible inspiration from history.
- **Management:** Anytime a team works together toward a goal, there must be some management. Good designers can succeed even when management is bad, secretly “managing from below” to get the job done.
- **Mathematics:** Games are full of mathematics, probability, risk analyses, and complex scoring systems, not to mention the mathematics that stands behind computer graphics and computer science in general. A skilled designer must not be afraid to delve into math from time to time.
- **Music:** Music is the language of the soul. If your games are going to truly touch people, to immerse, and embrace them, they cannot do it without music.
- **Psychology:** Your goal is to make a human being happy. You must understand the workings of the human mind or you are designing in the dark.
- **Public speaking:** You will frequently need to present your ideas to a group. Sometimes you will speak to solicit their feedback; sometimes you will speak to persuade them of the genius of your new idea. Whatever the reason, you must be confident, clear, natural, and interesting, or people will be suspicious that you don’t know what you are doing.
- **Sound design:** Sound is what truly convinces the mind that it is in a place; in other words, “hearing is believing.”
- **Technical writing:** You need to create documents that clearly describe your complex designs without leaving any holes or gaps.
- **Visual arts:** Your games will be full of graphic elements. You must be fluent in the language of graphic design and know how to use it to create the feeling you want your game to have.

And of course, there are many more. Daunting, isn’t it? How could anyone possibly master all of these things? The truth is that no one can. But the more of these things you are comfortable working with, however imperfectly, the better off you will be, for growth only happens when we exceed our limits. This is another reason that game designers must be confident and fearless. But there is one skill that is the key to all the others.

The Most Important Skill

Of all the skills mentioned in the previous section, one is far and away the most important, and it sounds so strange to most people that I didn't even list it. Many people guess "creativity," and I would argue that this is probably the second most important skill. Some guess "critical thinking" or "logic," since game design is about decision making. These are indeed important, but by no means the most important skills.

Some say "communication," which starts to get close. The word communication has unfortunately become corrupted over the centuries. It once referred to an exchange of ideas but now has become a synonym for talking, as in "I have something to communicate to you." Talking is certainly an important skill, but good communication and good game design are rooted in something far more basic and far more important.

Listening.

The most important skill for a game designer is listening.

Game designers must listen to many things. These can be grouped into five major categories: team, audience, game, client, and self. Most of this book will be about how to listen to these five things.

This may sound absurd to you. Is listening even a skill? We are not equipped with "earlids." How can we help but listen?

By listening, I don't mean merely hearing what is said. I mean a deeper listening, a thoughtful listening. For example, you are at work, and you see your friend Fred. "Hi Fred, how are you?" you say. Fred frowns, looks down, shifts his weight uncomfortably, seems to be hunting for words, and then says quietly, without eye contact, "Uh, fine, I guess." And then, he collects himself, takes a breath, and looks you in the eye as he determinedly, but not convincingly, says a little louder, "I'm, uh, fine. How are you?"

So how is Fred? His words say, "He's fine." Great. Fred is fine. If you are just "surface listening," you might draw that conclusion. But if you listen more deeply, paying full attention to Fred's body language, subtle facial expression, tone of voice, and gestures, you might hear a very different message: "Actually, I'm not fine. I have a serious problem that I think I might want to discuss with you. But I won't do that unless I get some kind of commitment from you that you really care about my problem, because it is kind of a personal issue. If you don't want to get involved with it, though, I won't bother you with it, and I'll just pretend that everything is okay."

All of that was right there, in Fred's "I'm fine." And if you were listening deeply to what he said, you heard it all, clear as a bell, plain as day, as if he'd said it out loud. This is the kind of listening that game designers must engage in, day in and day out, with every decision that they make.

When you listen thoughtfully, you observe everything and constantly ask yourself questions: "Is that right?" "Why is it that way?" "Is this how she really feels?" "Now that I know that, what does it mean?"

Game designer Brian Moriarty once pointed out that there was a time when we didn't use the word "listen," instead we said "list!" And where did this come from?

Well, what do we do when we listen? We tip our head to one side—our head literally lists, as a boat at sea. And when we tip to one side, we put ourselves off balance; we accept the possibility of upset. When we listen deeply, we put ourselves in a position of risk. We accept the possibility that what we hear may upset us and may cause everything we know to be contradicted. It is the ultimate in open-mindedness. It is the only way to learn the truth. You must approach everything as a child does, assuming nothing, observing everything, and listening as Herman Hesse describes in *Siddhartha*:

To listen with a silent heart, with a waiting, open soul. Without passion, without desire, without judgment, without rebuke.

The Five Kinds of Listening

Because game design is such an interconnected web, we will be visiting and revisiting the five kinds of listening and exploring their interconnections throughout this book.

You will need to listen to your **team** (Chapters 26 and 27), since you will be building your game and making crucial game design decisions together with them. Remember that big list of skills? Together, your team might have all of them. If you can listen deeply to your team and truly communicate with them, you will all function as one unit, as if you all shared the same skills.

You will need to listen to your **audience** (Chapters 9 through 11, 24, 25, and 33) because these are the people who will be playing your game. Ultimately, if they aren't happy with your game, you have failed. And the only way to know what will make them happy is to listen to them deeply, getting to know them better than they know themselves.

You will need to listen to your **game** (most chapters in this book). What does this even mean? It means you will get to know your game inside and out. Like a mechanic who can tell what is wrong with a car by listening to the engine, you will get to know what is wrong with your game by listening to it being played.

You will need to listen to your **client** (Chapters 30 through 32). The client is the one who is paying you to design the game, and if you don't give them what they want, they'll go to someone else who does. Only by listening to them, deeply, will you be able to tell what they really want, deep in their hearts.

And last, you will need to listen to your **self** (Chapters 1, 7, and 35). This sounds easy, but for many, it is the most difficult kind of listening. If you can master it, however, it will be one of your most powerful tools and the secret behind your tremendous creativity.

The Secret of the Gifted

After all that fancy talk, your confidence might be fading already. You might be wondering whether game design is really for you. You might have noticed that

skilled game designers seem to have a special gift for the work. It comes easily and naturally to them, and though you love games, you wonder if you are gifted enough to succeed as a designer. Well, here is a little secret about gifts. There are two kinds. First, there is the innate gift of a given skill. This is the minor gift. If you have this gift, a skill such as game design, mathematics, or playing the piano comes naturally to you. You can do it easily, almost without thinking. But you don't necessarily enjoy doing it. There are millions of people with minor gifts of all kinds, who, though skilled, never do anything great with their gifted skill, and this is because they lack the major gift.

The major gift is love of the work. This might seem backward. How can love of using a skill be more important than the skill itself? It is for this simple reason: If you have the major gift, the love of designing games, you will design games using whatever limited skills you have. And you will keep doing it. And your love for the work will shine through, infusing your work with an indescribable glow that only comes from the love of doing it. And through practice, your game design skills, like muscles, will grow and become more powerful, until eventually your skills will be as great, or greater than, those of someone who only has the minor gift. And people will say, "Wow. That one is a truly gifted game designer." They will think you have the minor gift, of course, but only you will know the secret source of your skill, which is the major gift: love of the work.

But maybe you aren't sure if you have the major gift. You aren't sure if you truly love game design. I have encountered many students who started designing games just to see what it was like, only to find that to their surprise, they truly love the work. I have also encountered those who were certain that they were destined to be game designers. Some of them even had the minor gift. But when they experienced what game design really was like, they realized it wasn't for them.

There is only one way to find out if you have the major gift. Start down the path, and see if it makes your heart sing.

So recite your magic words, for down the path we go!

I am a game designer.

I am a game designer.

I am a game designer.

I am a game designer.

Other Reading to Consider

Cirque du Soleil: The Spark—Igniting the Creative Fire that Lives within Us All by Lyn Heward and John U. Bacon. This is a wonderful little book about finding your path.

Challenges for Game Designers by Brenda Brathwaite and Ian Schreiber. A magnificent collection of exercises for when you are ready to stretch your game design muscles.



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CHAPTER TWO

The Designer Creates an *Experience*

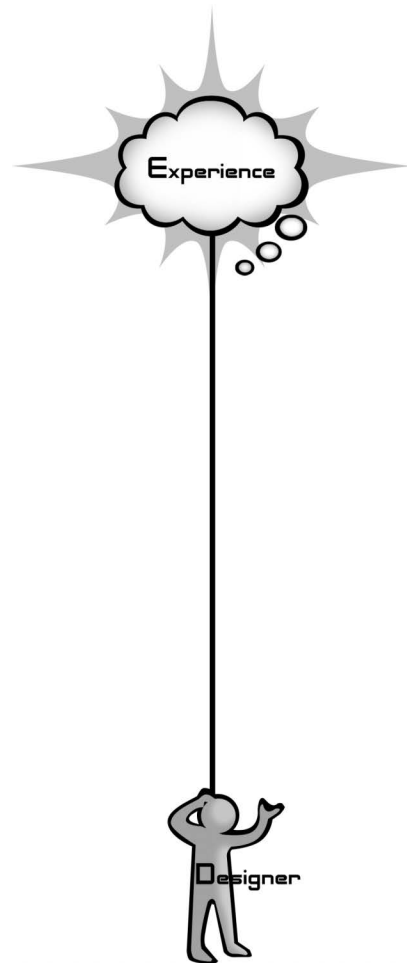


FIGURE
2.1

*I already know the ending
it's the part that makes your face implode
I don't know what makes your face implode
but that's the way the movie ends.*

—They Might Be Giants, *Experimental Film*

*Of the innumerable effects, or impressions, of which the heart, the intellect, or
the soul is susceptible, what one shall I, on the present occasion, select?*

—Edgar Allen Poe, *The Philosophy of Composition*

In Chapter 1, we established that everything begins with the game designer and that the game designer needs certain skills. Now it is time to begin talking about what a game designer uses those skills for. Put another way, we need to ask, “What is the game designer’s goal?” At first, the answer seems obvious: a game designer’s goal is to design games.

But this is wrong.

Ultimately, a game designer does not care about games. Games are merely a means to an end. On their own, games are just artifacts—clumps of cardboard or bags of bits. Games are worthless unless people play them. Why is this? What magic happens when games are played?

When people play games, they have an experience. It is this experience that the designer cares about. Without the experience, the game is worthless.

I will warn you right now: we are about to enter territory that is very difficult to talk about, not because it is unfamiliar—in fact, quite the opposite. It is hard to talk about because it is too familiar. Everything we’ve ever seen (look at that sunset!), done (have you ever flown a plane?), thought (why is the sky blue?), or felt (this snow is so cold!) has been an experience. By definition, we can’t experience anything that is not an experience. Experiences are so much a part of us; they are hard to think about (even thinking about experiences is an experience). But as familiar as we are with experiences, they are very hard to describe. You can’t see them, touch them, or hold them—you can’t even really share them. No two people can have identical experiences of the same thing—each person’s experience of something is completely unique.

And this is the paradox of experiences. On one level, they are shadowy and nebulous, and on another, they are all we know. But as tricky as experiences can be, creating them is all a game designer really cares about. We cannot shy away from them, retreating into the concreteness of our material game. We must use every means we can muster to comprehend, understand, and master the nature of human experience.

The Game Is Not the Experience

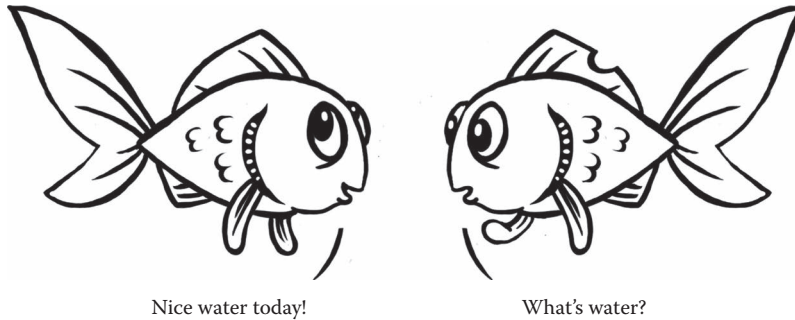


FIGURE
2.2

We must be absolutely clear on this point before we can proceed. The game is not the experience. The game enables the experience, but it is not the experience. This is a hard concept for some people to grasp. The ancient Zen question addresses this directly: “If a tree falls in the forest, and no one is there to hear it, does it make a sound?” This has been repeated so often that it sounds hackneyed, but it is exactly what we are talking about. If our definition of “sound” is air molecules vibrating, then yes, the tree makes a sound. If our definition of sound is the experience of hearing a sound, then the answer is no, the tree makes no sound when no one is there. As designers, we don’t really care about the tree and how it falls—we care only about the experience of hearing it. The tree is just a means to an end. And if no one is there to hear it, well, we don’t care at all.

Game designers only care about what seems to exist. The player and the game are real. The experience is imaginary—but game designers are judged by the quality of this imaginary thing because it is the reason people play games.

If we could, through some high-tech magic, create experiences for people directly, with no underlying media—no game boards, no computers, no screens—we would do it. In a sense, this is the dream of “artificial reality”—to be able to create experiences that are in no way limited by the constraints of the medium that delivers the experiences. It is a beautiful dream, but only a dream. We cannot create experiences directly. Perhaps in the distant future, using technologies hard to imagine, such a thing could happen. Time will tell. For now, we live in the present, where all we can do is create artifacts (rule sets, game boards, computer programs) that are likely to create certain kinds of experiences when a player interacts with them.

And it is this that makes game design so very hard. Like building a ship in a bottle, we are far removed from what we are actually trying to create. We create an artifact that a player interacts with and cross our fingers that the experience that takes place during that interaction is something they will enjoy. We never truly

see the output of our work, since it is an experience had by someone else and, ultimately, unsharable.

This is why deep listening is so essential for game design.

Is This Unique to Games?

You might well ask what is so special about games, compared to other types of experiences, that require us to get into all of this touchy-feely experience stuff. And really, on one level, there is nothing special about games in this regard. Designers of all types of entertainment—books, movies, plays, music, rides, everything—have to cope with the same issue: How can you create something that will generate a certain experience when a person interacts with it?

But the split between artifact and experience is much more obvious for game design than it is for other types of entertainment, for a not-so-obvious reason. Game designers have to cope with much more interaction than the designers of more linear experiences. The author of a book or screenplay is designing a linear experience. There is a fairly direct mapping between what they create and what the reader or viewer experiences. Game designers don't have it so easy. We give the player a great deal of control over the pacing and sequence of events in the experience. We even throw in random events! This makes the distinction between artifact and experience much more obvious than it is for linear entertainment. At the same time, though, it makes it much harder to be certain just what experience is really going to arise in the mind of the player.

So, why do we do it? What is so special about game experiences that we would give up the luxuries of control that linear entertainers enjoy? Are we simply masochists? Do we just do it for the challenge? No. As with everything else game designers do, we do it for the experience it creates. There are certain feelings: feelings of choice, feelings of freedom, feelings of responsibility, feelings of accomplishment, feelings of friendship, and many others, which only game-based experiences seem to offer. This is why we go through all the trouble—to generate experiences that can be had no other way.

Three Practical Approaches to Chasing Rainbows

There ain't no rules around here! We're trying to accomplish something!

—Thomas Edison

So—we've established what we need to do—create games that will somehow generate wonderful, compelling, memorable experiences. To do this, we must embark on a daunting endeavor: to uncover both the mysteries of the human mind and the secrets of the human heart. No one field of study has managed to

perfectly map this territory (Mendeleev, where are you?), but several different fields have managed to map out parts of it. Three, in particular, stand out: psychology, anthropology, and design. Psychologists want to understand the mechanisms that make people tick, anthropologists want to understand people on a human level, and designers just want to make people happy. We will be using approaches borrowed from all three of these fields, so let's consider what each one has to offer us.

Psychology

Who better for us to learn the nature of human experience from than psychologists, the scientists who study the mechanisms that govern the human mind? And truly, they have made some discoveries about the mind that are incredibly useful, some of which will be covered in this book. In fact, you might expect that our quest for understanding how to create great human experiences might end right here and that the psychologists should have all the answers. Sadly, this is not the case. Because they are scientists, they are forced to work in the realm of what is real and provable. Early in the twentieth century, a schism in psychology developed. On one side of the battle were the behaviorists who focused only on measurable behavior, taking a “black box” approach to the study of the mind. Their primary tool was objective, controlled experimentation. On the other side were the phenomenologists, who study what game designers care about most—the nature of human experience and “the feeling of what happens.” Their primary tool was introspection—the act of examining your experiences as they happen.

Unfortunately for us, the behaviorists won out and for very good reasons. The behavioristic focus on objective, repeatable experiments makes for very good science. One behaviorist can do an experiment, publish a paper about it, and other behaviorists can repeat the experiment under the same conditions, almost certainly getting the same results. The phenomenological approach, on the other hand, is necessarily subjective. Experiences themselves cannot be directly measured—only described and described imperfectly. When an experiment takes place in your mind, how can you possibly be sure the experimental conditions are controlled? As fascinating and useful as it might be to study our own internal thoughts and feelings, it makes for shaky science. As a result, for as much progress that has been made by modern psychology, it generally feels obligated to avoid the thing we care about the most—the nature of human experience.

Though psychology does not have all the answers we need, it does provide some very useful ones, as we'll see. More than that, it provides approaches we can use quite effectively. Not bound by the strict responsibilities of good science, game designers can make use of both behavioristic experiments and phenomenological introspection to learn what we need to know, since ultimately, as designers, we are

not concerned with what is definitely true in the world of objective reality but only with what seems to be true in the world of subjective experience.

But perhaps there is another scientific approach that lies somewhere between the two extremes of behaviorism and phenomenology?

Anthropology

Anthropology is the most humanistic of the sciences and the most scientific of the humanities.

—Alfred L. Kroeber

Anthropology is another major branch of study about human beings and what they think and do. It takes a much more holistic approach than psychology, looking at everything about people including their physical, mental, and cultural aspects. It is very concerned with studying the similarities and differences between the various peoples of the world, not just today, but throughout history.

Of particular interest to game designers is the approach of cultural anthropology, which is the study of living peoples' ways of life, mostly through fieldwork. Cultural anthropologists live with their subjects of study and try to immerse themselves completely in the world of the people they are trying to learn about. They strive for objective observation of culture and practices, but at the same time, they engage in introspection and take great pains to put themselves in the place of their subjects. This helps the anthropologist better imagine what it “feels like” to be their subjects.

We can learn a number of important things about human nature from the work of anthropologists—but much more important, by taking a cultural anthropologist's approach to our players, interviewing them, learning everything we can about them, and putting ourselves in their place, we can gain insights that would not have been possible from a more objective point of view.

Design

The third field that has made important study of human experience is, not surprisingly, the field of design. We will be able to learn useful things from almost every kind of designer: musicians, architects, authors, filmmakers, industrial designers, web designers, choreographers, visual designers, and many more. The incredible variety of design “rules of thumb” that comes from these different disciplines does an excellent job of illustrating useful principles about human experience. But unfortunately, these principles can often be hard for us to use. Unlike scientists, designers seldom publish papers about their discoveries. The very best designers in various fields often know little about the workings of other fields of design. The musician may know a lot about rhythm but probably has given little thought to how the principles of rhythm might apply to something nonmusical, such as a novel or stage play, even though they

may have meaningful practical application there, since they are ultimately rooted in the same place—the human mind. So, to use principles from other areas of design, we will need to cast a wide net. Anyone who creates something that people are meant to experience and enjoy has something to teach us, and so we will pull rules and examples from designers of every stripe, being as “xenophilic” as possible.

Ideally, we would find ways to connect all the varied principles of design to each other through the common ground of psychology and anthropology, since ultimately all design principles are rooted in these. In some small ways, we will do that in this book. Perhaps one day these three fields will find a way to unify all their principles. For now, we will need to be content with building a few bridges here and there—this is no small accomplishment, since these are three fields that seldom have much cross-pollination. Further, some of the bridges will prove to be surprisingly useful! The task before us, game design, is so difficult that we cannot afford to be snobbish about where we get our knowledge. None of these approaches can solve all our problems, so we will mix and match them, trying to use them appropriately, like we might use tools from a toolbox. We must be both open-minded and practical—good ideas can come from anywhere, but they are only good for us if they help us create better experiences.

Introspection: Powers, Perils, and Practice

A dedicated scientist never hesitates to experiment on himself.

—Fenton Claypool

We have discussed some of the places to find useful tools for mastering human experience. Let’s now focus on one tool that has been used by all three disciplines: introspection. This is the seemingly simple act of examining your own thoughts and feelings—that is, your own experiences. While it is true you can never truly know the experience of another, you certainly can know your own. In one sense, it is all you can know. By deeply listening to your own self, that is, observing, evaluating, and describing your own experiences, you can make rapid, decisive judgments about what is and is not working in your game and why it is or is not working.

“But wait,” you might say. “Is introspection really such a good idea? If it isn’t good enough for the scientists, why is it good enough for us?” And this is a fair question. There are two main perils associated with using introspection.

Peril #1: Introspection Can Lead to False Conclusions about Reality

This is the scientists’ main reason to reject introspection as a valid method of inquiry. Many pseudoscientists over the years have come up with crackpot theories

based mainly on introspection. This happens so often because what seems to be true in our personal experience is not necessarily really true. Socrates, for example, noted that when we learn something new, it often feels like we knew it all along and that in learning it, it feels as if we were just reminded of something we already knew but had forgotten. This is an interesting observation, and most people can remember a learning experience that felt this way. But Socrates then goes too far and forms an elaborate argument that since learning can feel like recollection, we must then be reincarnated souls who are just now remembering what we learned in past lives.

This is the problem with drawing conclusions about reality based on introspection—just because something feels true, it doesn't mean it is true. People very easily fall into the trap of building up structures of questionable logic to back up something that feels like it must be true. Scientists learn to be disciplined about avoiding this trap. Introspection certainly has its place in science—it allows one to examine a problem from points of view that mere logic won't allow. Good scientists use introspection all the time—but they don't draw scientific conclusions from it.

Fortunately for us, game design is not science! While “objective truth about reality” is interesting and sometimes useful to us, we primarily care about what “feels like it is true.” Aristotle gives us another classical example that illustrates this perfectly. He wrote a number of works on a variety of topics, such as logic, physics, natural history, and philosophy. He is famous for the depth of his personal introspection, and when we examine his works, we find something interesting. His ideas about physics and natural history are largely discredited today. Why? Because he relied too much on what felt true and not enough on controlled experiments. His introspection led him to all kinds of conclusions we now know to be false, such as the following:

- Heavier objects fall faster than light ones.
- The seat of consciousness is in the heart.
- Life arises by spontaneous generation.

So why do we remember him as a genius and not as a crackpot? Because his other works, about metaphysics, drama, ethics, and the mind, are still useful today. In these areas where what feels true matters more than what is objectively, provably true, most of his conclusions, reached through deep introspection, stand up to scrutiny thousands of years later.

The lesson here is simple: when dealing with the human heart and mind and trying to understand experience and what things feel like, introspection is an incredibly powerful and trustworthy tool. As game designers, we don't need to worry much about this first peril. We care more about how things feel and less about what is really true. Because of this, we can often confidently trust our feelings and instincts when making conclusions about the quality of an experience.

Peril #2: What Is True of My Experiences May Not Be True for Others

This second danger of introspection is the one we must take seriously. With the first peril, we got a “Get Out of Jail Free” card because we are designers, not scientists. But we can’t get away from this one so easily. This peril is the peril of subjectivity and a place where many designers fall into a trap: “I like playing this game; therefore, it must be good.” And sometimes, this is right. But other times, if the audience has tastes that differ from your own, it is very, very wrong. Some designers take extreme positions on this ranging from “I will only design for people like me, because it is the only way I can be sure my game is good” to “introspection and subjective opinions can’t be trusted. Only playtesting can be trusted.” Each of these is a “safe” position but also has its limits and problems:

“**I only design for people like me**” has these problems:

- Game designers tend to have unusual tastes. There may not be enough people like you out there to make your game a worthwhile investment.
- You won’t be designing or developing alone. If different team members have different ideas about what is best, they can be hard to resolve.
- There are many kinds of games and audiences that will be completely off limits to you.

“**Personal opinions can’t be trusted**” has these problems:

- You can’t leave every decision to playtesting, especially early in the process, when there is no game yet to playtest. At this point, someone has to exert a personal opinion about what is good and bad.
- Before a game is completely finished, playtesters may reject an unusual idea. They sometimes need to see it completed before they can really appreciate it. If you don’t trust your own feelings about what is good and bad, you may, at the advice of your playtesters, throw out an “ugly duckling” that could have grown up to be a beautiful swan.
- Playtesting can only happen occasionally. Important game design decisions must be made on a daily basis.

The way out of this peril, without resorting to such limiting extremes, is again to listen. Introspection for game design is a process of not just listening to yourself but also listening to others. By observing your own experiences, and then observing others, and trying to put yourself in their place, you start to develop a picture of how your experiences differ from theirs. Once you have a clear picture of these differences, you can, like a cultural anthropologist, start to put yourself

in the place of your audience and make predictions about what experiences they will and will not enjoy. It is a delicate art that must be practiced—and with practice, your skill at it will improve.

Dissect Your Feelings

Work in the invisible world at least as hard as you do in the visible.

—Rumi

It is not such a simple thing to know your feelings. It is not enough for a designer to simply have a general sense about whether they like something or not. You must be able to clearly state what you like, what you don't like, and why. A friend of mine in college was notoriously bad at this. We would frequently drive each other crazy with conversations like the following:

Me: What did you eat at the cafeteria today?

Him: Pizza. It was bad.

Me: Bad? What was bad about it?

Him: It was just ... bad.

Me: Do you mean it was too cold? Too hard? Too soggy? Too bitter? Too much sauce? Not enough sauce? Too cheesy? What was bad about it?

Him: I don't know—it was just bad!

He was simply unable to clearly dissect his experiences. In the case of the pizza, he knew he didn't like it but was unable to (or didn't bother to) analyze the experience to the point where he could make useful suggestions about how the pizza might improve. This kind of experience dissection is a main goal of your introspection—it is something designers must do. When you play a game, you must be able to analyze how it made you feel, what it made you think of, and what it made you do. You must be able to state this analysis clearly. You must put words to it, for feelings are abstract, but words are concrete, and you will need this concreteness to describe to others the experiences you want your game to produce. You need to do this kind of analysis not only when designing and playing your own games but also when playing games other people have created. In fact, you should be able to analyze any experience you might have. The more you analyze your own experiences, the more clearly you will be able to think about the kinds of experiences your games should create.

We have a special word for the feelings that rise up from within us: emotions. Our logical mind can easily dismiss emotions as unimportant, but they are the foundation of all memorable experience. So that we never forget the importance of emotions for experience design, let's make them our first lens.

#1 The Lens of Emotion

People may forget what you said, but they'll never forget how you made them feel.

—Maya Angelou

To make sure the emotions you create are the right ones, ask yourself these questions:

- What emotions would I like my player to experience? Why?
- What emotions are players (including me) having when they play now? Why?
- How can I bridge the gap between the emotions players are having and the emotions I'd like them to have?



Illustration by Rachel Dorrett

Defeating Heisenberg

But there is still a greater challenge of introspection. How can we observe our own experiences without tainting them, since the act of observation itself is an experience? We face this problem quite often. Try to observe what your fingers are doing as you type at a computer keyboard and you will quickly find yourself typing slowly and making many errors, if you can still type at all. Try to observe yourself enjoying a movie or a game, and the enjoyment can quickly fade away. Some call this “paralysis by analysis,” and others refer to it as the Heisenberg principle. This principle, in reference to the Heisenberg uncertainty principle from quantum mechanics, implies that the attributes of a particle cannot be observed without affecting those attributes. Similarly, the nature of an experience cannot be observed without affecting the nature of that experience. This makes introspection sound hopeless. While it is a challenging problem, there are ways around it that are quite effective, though some take practice. Most of us are not in the habit of openly discussing the nature of our thought processes, so some of the following is going to sound a little strange.

Analyze Memories

One good thing about experiences is that we remember them. Analyzing an experience while it is happening can be hard, because the part of your mind used for analysis is normally focused on the experience itself. Analyzing your memory of an experience is much easier. Memory is imperfect, but analyzing a memory is better than nothing. Of course, the more you remember, the better, so working either with memories of powerful experiences (these often make the best inspiration, anyway) or with fresh memories is best. If you have the mental discipline, it also can be very useful to engage in an experience (such as playing a game), with the intention of not analyzing it while you play, but with the intention of analyzing the memory of it immediately after. Just having this intention can help you remember more details of the experience without interfering with the experience itself. This does require you to remember that you are going to analyze it without letting that thought interfere with the experience. Tricky!

Two Passes

A method that builds on analyzing memories is to run through your experience twice. The first time, don't stop to analyze anything—just have the experience. Then, go back and do it again, this time, analyzing everything—maybe even pausing to take notes. You have the untainted experience fresh in your mind, and the second run-through lets you “relive it” but gives you a chance to stop and think, considering how it felt and why.

Sneak Glances

Is it possible to observe your experience without spoiling it? It is, but it takes some practice. It sounds strange to say this, but if you “sneak quick glances” at your experience while it is happening, you can often observe it quite well without degrading or interrupting it significantly. It is kind of like trying to get a good look at a stranger in a public place. Take a few short glances at them, and they won't notice you are observing them. But look too long, and you will catch their attention, and they will notice you staring. Fortunately, you can learn a lot about an experience with a few short “mental glances.” Again, this takes some mental discipline or you will get carried away with analysis. If you can make these mental glances habitual, just doing them all the time without thinking about it, they will interrupt things even less. Most people find what really interrupts their train of thought, or train of experience, is interior mental dialog. When you start asking and answering too many questions in your head, your experience is doomed. A “quick glance” is more like “Exciting enough? Yes.” Then, you immediately stop analyzing and get back to the experience, until the next glance.

Observe Silently

Ideally, though, you want to observe what is happening to you while it is happening, not just through a few quick glances but through continuous observation. You want it to be as if you were sitting outside yourself, watching yourself, except that you see more than a normal observer. You can hear all of your thoughts and feel all of your feelings. When you enter this state, it is almost as if you have two minds: one moving, engaged in an experience, and one still, silently observing the other. This may sound completely bizarre, but it is quite possible and quite useful. It is a difficult state to achieve, but it can be reached. It seems to be something like the Zen practice of self-observation, and it is not unlike the meditation exercise of trying to observe your own breathing cycle. Normally we breathe without thinking, but at any moment, we may consciously take control of our breathing process—consequently interfering with it. With practice however, you can observe your natural, unconscious breathing without disturbing it. But this takes practice, just as observing your experiences takes practice. Observing your experiences can be practiced anywhere—while watching TV, while working, while playing, or while doing anything at all. You won't get it right at first, but if you keep experimenting and practicing, you will start to get the hang of it. It will take a great deal of practice. But if you truly want to listen to your self and understand the nature of human experience, you will find the practice worthwhile.

Essential Experience

But how does all this talk about experience and observations really fit in with games? If I want to make a game about, say, a snowball fight, does analyzing my memories of a real snowball fight have any bearing on the snowball fight game I want to make? There is no way I can perfectly replicate the experience of a real snowball fight without real snow and real friends outside in the real world—so what is the point?

The point is that you don't need to perfectly replicate real experiences to make a good game. What you need to do is to capture the essence of those experiences for your game. What does “the essence of an experience” really mean? Every memorable experience has some key features that define it and make it special. When you go over your memory of a snowball fight experience, for example, you might think of a lot of things. There are some you might even consider essential to that experience: “There was so much snow, school was canceled.” “We played right in the street.” “The snow was just right for packing.” “It was so cold, but sunny—the sky was so blue.” “There were kids everywhere.” “We built this huge fort.” “Fred threw a snowball really high—when I looked up at it, he chucked one right at my head!” “We couldn't stop laughing.” There are also parts of that experience that you don't consider essential: “I was wearing corduroy pants.” “I had some mints in my pocket.” “A man walking his dog looked at us.”

As a game designer trying to design an experience, your goal is to figure out the essential elements that really define the experience you want to create and find ways to make them part of your game design. This way, the players of your game get to experience those essential elements. Much of this book will be about the many ways you can craft a game to get across the experience you want players to have. The key idea here is that the essential experience can often be delivered in a form that is very different from a real experience. To follow up on the snowball fight example, what are some of the ways you could convey the experience “it was so cold” through a snowball fight game? If it is a videogame, you could certainly use artwork: the characters could breathe little puffs of condensation, and they could have a shivering animation. You could use sound effects—perhaps a whistling wind could convey coldness. Maybe there wasn’t a cold wind on the day you are imagining, but the sound effect might capture the essence and deliver an experience that seems cold to the player. You could use the rules of the game, too, if cold was really important to you. Maybe players can make better snowballs without gloves, but when their hands get too cold, they have to put gloves on. Again, that might not have really happened, but that game rule helps deliver an experience of coldness that will be an integral part of your game.

Some people find this approach strange—they say, “Just design a game and see what experience comes out of it!” And I suppose it is true—if you don’t know what you want, you might not care what you get. But if you do know what you want—if you have a vision of how you would like your game to feel to the players—you need to consider how you are going to deliver the essential experience. And this brings us to our next lens.

#2 *The Lens of Essential Experience*

To use this lens, you stop thinking about your game and start thinking about the experience of the player. Ask yourself these questions:

- What experience do I want the player to have?
- What is essential to that experience?
- How can my game capture that essence?



Illustration by Zachary D. Coe

If there is a big difference between the experience you want to create and the one you are actually creating, your game needs to change: you need to clearly state the essential experience you desire and find as many ways as possible to instill this essence into your game.

The design of the very successful baseball game in *Wii Sports* is an excellent example of the Lens of Essential Experience in use. Originally, the designers had intended to make it as much like real baseball as possible with the added bonus that you could swing your controller like a bat. As they proceeded, though, they realized they wouldn't have time to simulate every aspect of baseball as much as they wanted. So they made a big decision—since swinging the controller was the most unique part of this game, they would focus all their attention on getting that part of the baseball experience right—what they felt was the essential part. They decided that other details (nine innings, stealing bases, etc.) were not part of the essential experience they were trying to create.

Designer Chris Klug made masterful use of the Lens of Essential Experience when he created the tabletop role-playing game *James Bond 007*. Klug had been frustrated with previous attempts to create secret agent role-playing games, such as TSR's *Top Secret*, because they played too much like war games—the essence of what made spy movies exciting just wasn't there. For the Bond game, Klug designed the mechanics to feel like the exciting James Bond films every way he could. One outstanding example was the creation of something called “Hero Points.” In traditional RPGs, when players would undertake a risky action, say, jumping out a window onto a moving helicopter, the game master would make some calculation of the probability of it succeeding, the player would roll the dice, and that was that. This gives the game master a difficult problem of balance: if the probability of succeeding at dangerous actions is too low, the players won't risk it. But if the chance is too high, the players will all act like superheroes, attempting and succeeding at all kinds of impossible feats. Klug's solution was to give players a budget of Hero Points, which they could use in risky situations to alter dice rolls to their favor. Since each player only got a small number of points to use on each adventure, players had to be very careful about when to use them—but when they did use them, it was to enact spectacular events that truly captured the essence of the James Bond books and films.

It is true that many designers do not use the Lens of Essential Experience. They just kind of follow their gut instinct and stumble across game structures that happen to enable experiences that people enjoy. The danger with this approach is that it relies on luck to a large extent. To be able to separate the experience from the game is very useful: if you have a clear picture in your mind of the experiences your players are having and what parts of your game enable that experience, you will have a much clearer picture of how to make your game better, because you will know which elements of the game you can safely change and which ones you cannot. The ultimate goal of the game designer is to deliver an experience. When you have a clear picture of your ideal experience and its essential elements, your design has something to aspire to. Without that goal, you are just wandering in the dark.