

# **Rules of Play: Game Design Fundamentals**

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## DEFINING GAMES



**play**

**games**

**designed system**

**artificial**

**conflict**

**rules**

**quantifiable outcome**

**games and puzzles**

**role-playing games**

*The word [game] is used for so many different activities that it is not worth insisting on any proposed definition. All in all, it is a slippery lexicological customer, with many friends and relations in a wide variety of fields.—David Parlett, *The Oxford History of Board Games**

*What are games? Are they things in the sense of artifacts? Are they behavioral models, or simulations of social situations? Are they vestiges of ancient rituals, or magical rites? It is difficult and even curious when one tries to answer the question “what are games,” since it is assumed that games are many things and at the same time specific games are different from one another—but are they?—E. M. Avedon, “The Structural Elements of Games”*

Entering by way of meaningful play, following a path of embedded concepts connecting design to systems to interactivity, we have arrived at the heart of our study: games. It is therefore high time to define just what it is that makes a game a game. Should we even attempt such a definition? Perhaps, as game historian David Parlett warns in the quote that opens this chapter, any attempt to define the word “game” is a foolish endeavor. On the other hand, if one of our goals is to help formalize the field of game design, then it seems crucial to define the object that is so central to the discipline.

Historically, play and games have been studied in a myriad of ways, from economists using game-like simulations to literary theorists studying the “play” of meaning in language and literature. These investigations study games or play in the service of another field. Our intent, on the other hand, is to study play and games within the field of game design. A definition of “game” should help to not only distinguish game design from other design practices, but also bring us closer to an understanding of meaningful play.

## **Play and Game**

As a first step, let us see how *game* relates to the equally complex *play*. We begin with an obvious question: Is there a difference between the words “play” and “game”? Do they refer to the same thing? In English, there is a clear distinction between the two words. But as David Parlett points out in the *The Oxford History of Board Games*, not all languages separate the two concepts. The phrase “to play a game,” in both German and French, for example, uses different versions of the same word for both “play” and “game.” In French “*on joue á un jeu*; in German, *man spielt ein Spiel*.”<sup>1</sup> Although there are many ways to define play and games, we will take advantage of the difference that English affords to consider games and play as two separate ideas with related, but distinct meanings.

It turns out that play and games have a surprisingly complex relationship. Play is both a larger and a smaller term than “game,” depending on the way it is framed. In one sense, “play” is a larger term that includes “game” as a subset. In another, the reverse is true: “game” is the bigger term, and includes “play” within it. Consider each of these relationships separately:

### ***Relationship one: Games are a subset of play.***

If we think about all of the activities we could call play, from two dogs playfully chasing each other in a grassy field, to a child singing a nursery rhyme, to a community of online role-players, it seems that only some of these forms of play would actually constitute what we might think of as a game. Playing Dodge Ball, for example, is playing a game: players obey a formalized set of rules and compete to win. The activities of playing on a seesaw, or horsing around on a jungle gym, however, are forms of play which do not constitute a game. Most forms of play are looser and less organized than games. However, some forms of play are formalized, and these forms of play can often be considered games. In this sense, it is clear that “game” is a subset of “play.” ‘This is a typological approach, one that defines the relationship between play and games according to the forms they take in the world.



***Relationship two: Play is a component of games.***

In a different sense, games can be thought of as containing play. This entire book is about games, and one component of games is play. The experience of play is but one of many ways of looking at and understanding games. Within the larger phenomenon of games, then, the play of the game represents one aspect of games. Although play is a crucial element of the larger concept of games, “play” is in fact a subset of “game.” Rather than typological, this pairing of the terms represents a more conceptual approach that situates play and games within the field of game design.



This double formulation of play and games may sound contradictory, but it is not simply a terminological sleight-of-hand. The point is that there are important differences between the words “game” and “play.” English may be an anomaly in the way that it differentiates between these two terms, but it is an extremely useful distinction. A good definition of game should distinguish it clearly from play in both of the senses described here.

### **Comparing Definitions**

One challenge of understanding the term “game” is that it has so many uses. Consider, for example, many of the ways that the word is utilized in English:

- limp or crippled: a *game* leg
- a hunted animal: game hunting season is open
- being skilled, particularly in sports or in romance: having *game*; “*he got game*”
- to partake in gambling: to spend a night *gaming* in Vegas
- social and psychological manipulation: playing head *games*
- a procedure for gaining an end: playing the waiting *game* with a stubborn friend

- a field in which one earns a living: the writing *game* and, of course
- board *games*, card *games*, computer *games*, etc.

For our purposes, only a single subset of all of the possible meanings of “game” is relevant: the category of games proper, a category that includes board games, card games, sports, computer games, and similar activities. Put another way, games are what game designers create. Although this is an important qualification, it does not bring us any closer to a precise understanding of what is and what is not a game.

Luckily, we are not the first to attempt a definition of “game,” so we will be taking a close and comparative look at eight definitions that come from a variety of fields. In and among the definitions a handful of thorny issues appear again and again. These issues not only include articulating the unique qualities that make a game a game, but also differentiating games from similar phenomena, such as other forms of play, conflict, and contestation. It is also clear that there is a difference between defining games themselves and defining the act of playing a game.

There is one final point to make regarding the difference between “play” and “game.” The definitions of “game” to follow were written in many languages, and when translated to English there is some slippage between “play” and “game.” As a result, we look at definitions of play as well as “game” in the course of our investigation. Bear in mind that we are not building a definition of play (that comes in a later chapter), but are using definitions of play to shed light on an understanding of games.

### **Definition 1: David Parlett**

David Parlett is a game historian who has written extensively on card games and board games. Earlier we noted Parlett’s skepticism regarding the ability to define the slippery term “game.” Yet despite his assertion to the contrary, Parlett does provide a model for understanding games.

Parlett begins by distinguishing between formal and informal games.” An informal game is merely undirected play, or ‘playing around,’ as when children or puppies play at rough and tumble.” He contrasts this kind of activity with a “formal game”:

A formal game has a twofold structure based on ends and means:

*Ends.* It is a contest to achieve an objective. (The Greek for game is *agôn*, meaning contest.) Only one of the contenders, be they individuals or teams, can achieve it, since achieving it ends the game. To achieve that object is to win. Hence a formal game, by definition, has a winner; and winning is the “end” of the game in both senses of the word, as termination and as object.

*Means.* It has an agreed set of equipment and of procedural “rules” by which the equipment is manipulated to produce a winning situation.<sup>2</sup>

Parlett’s distinction between formal and informal games directly addresses a key challenge in

arriving at a definition of “game:” how to distinguish games from other forms of play. What Parlett calls an “informal game” of two puppies romping about might more simply be called *play*. His definition of a “formal game” has two main components:

- *Ends*: The fact that a “formal game” is a contest with an endpoint as its goal.
- *Means*: The agreed-upon rules and materials by which one wins the contest.

Both components—the idea of winning and the idea of doing so by means of rules—are key ideas in defining games, and in distinguishing them from other, less “formal” kinds of play.

## Definition 2: Clark C. Abt

In his book *Serious Games*, Clark C. Abt proposes the following definition of games:

Reduced to its formal essence, a game is an *activity* among two or more independent *decision-makers* seeking to achieve their *objectives* in some *limiting context*. A more conventional definition would say that a game is a context with rules among adversaries trying to win objectives.<sup>3</sup>

Abt’s definition offers an understanding of games that emphasizes the active role of players in a game. Here are the four key terms he highlights:

- *Activity*: a game is an activity, a process, an event;
- *Decision-makers*: games require players actively making decisions;
- *Objectives*: as with Parlett’s definition, games have goals;
- *Limiting context*: there are rules that limit and structure the activity of the game.

Comparing Abt’s definition to Parlett’s, we have another instance where games are seen to have a goal or objective. Abt refines Parlett’s idea of rules-based *means* by implying that rules are intrinsically limiting. But perhaps the most interesting component is Abt’s acknowledgment that games are an activity in which players *make decisions*. We know from our discussion of meaningful play that the interactivity present in games is based on players making decisions that have meaningful outcomes.

Does the scope of Abt’s definition feel appropriate? A definition of games can fail by being so narrow as to leave things out that are games or by being so broad that it includes things that are not games. Abt writes, in the same volume, that his definition fails on both accounts:

The trouble with this definition is that not all games are contests among adversaries—in some games the players cooperate to achieve a common goal against an obstructing force or natural situation that is itself not really a player since it does not have objectives.<sup>4</sup>

Abt, of course is correct. With its requirement of two or more independent decision-makers and emphasis on adversarial contest, his definition is too narrow—it leaves out cooperative or solitaire games. And, as he goes on to add, the definition is also too broad:

Of course, most real-life activities involve independent decisionmakers seeking to achieve objectives in some limiting context . . . . Political and social situations can often also be viewed as games. Every election is a game. International relations are a game. Every personal argument is a game. And almost all business activity is a game. Whether these contests of politics, war, economics, and interpersonal relations are played with resources of power, skill, knowledge, or luck, they always have the common characteristics of reciprocal decisions among independent actors with at least partly conflicting objectives.”<sup>5</sup>

War? Elections? Arguments? Games do bear similarity to other forms of human conflict. Although there are some very useful concepts in Abt’s definition, we still have a long way to go in demarcating exactly what does and does not constitute a game.

### **Definition 3: Johann Huizinga**

In 1938, Dutch Anthropologist Johann Huizinga published a groundbreaking study of the play element in culture, *Homo Ludens* (“Man the Player”). Among other things, *Homo Ludens* provides a definition of what Huizinga calls “play”:

[Play is] a free activity standing quite consciously outside “ordinary” life as being “not serious,” but at the same time absorbing the player intensely and utterly. It is an activity connected with no material interest, and no profit can be gained by it. It proceeds within its own proper boundaries of time and space according to fixed rules and in an orderly manner. It promotes the formation of social groupings, which tend to surround themselves with secrecy and to stress their difference from the common world by disguise or other means.<sup>6</sup>

In this definition, Huizinga asserts that play:

- is outside ordinary life;
- is “not serious”;
- is utterly absorbing;
- is not to be associated with material interest or profit;
- takes place in its own boundaries of time and space;
- proceeds according to rules;
- creates social groups that separate themselves from the outside world.

One of the strengths of this definition is that Huizinga manages to identify some of the more elusive and abstract qualities of play. The idea that play is both utterly absorbing but also not serious, for example, wonderfully describes the sense of being at play. On the other hand, it is not clear that these experiential qualities will help define a game: just because a poorly designed game fails to be absorbing doesn’t mean that it is not a game. Other aspects of his definition, such as his emphasis on play’s separation from ordinary life and the fact that play takes place within special boundaries of time and space, point to the intrinsic artificiality of games. Is this feature of artificiality a defining quality of games? We shall see.

Huizinga’s definition includes many important ideas, but on the whole it has some problems. Several of the components, such as the fact that play creates social groups, address the effects

of play and games rather than games themselves. Other elements, such as the disavowal of material gain from play, are too closely linked to the ideological agenda of *Homo Ludens*. In the end, the inclusive generality of Huizinga's definition is its greatest weakness. It does not, for example, ultimately differentiate between "play" and "game".

#### **Definition 4: Roger Caillois**

Expanding on the work of Huizinga during the 1960s, the French sociologist Roger Caillois published *Man, Play, and Games*, a book that is in many ways a direct response to *Homo Ludens*. Caillois also presents a definition of play, describing it as being:

- *Free*: in which playing is not obligatory; if it were, it would at once lose its attractive and joyous quality as diversion;
- *Separate*: circumscribed within limits of space and time, defined and fixed in advance;
- *Uncertain*: the course of which cannot be determined, nor the result attained beforehand, and some latitude for innovations being left to the player's initiative;
- *Unproductive*: creating neither goods, nor wealth, nor new elements of any kind; and, except for the exchange of property among the players, ending in a situation identical to that prevailing at the beginning of the game;
- *Governed by rules*: under conventions that suspend ordinary laws, and for the moment establish new legislation, which alone counts;
- *Make-believe*: accompanied by a special awareness of a second reality or of a free unreality, as against real life.<sup>7</sup>

Some of these ideas were part of the previous definitions; several are new. Every definition so far includes reference to the fact that play is governed by rules. The ideas that play exists in a separate space and does not create capital are borrowed from Huizinga. But Caillois extends an understanding of play by describing it as free or voluntary, by pointing out that the end of a game is uncertain, and by associating play with a sense of make-believe.

Do all of the elements Caillois lists really describe games? Although they seem to make intuitive sense, it is possible to think of situations where games are not voluntary, uncertain, or make-believe. If you are pressured by your friends into playing a game that you don't want to play, is it still a game? If a Chess master plays against a beginner, is the outcome of the game uncertain for the Chess master? Is there a make-believe element to Tic-Tac-Toe?

A central problem with Caillois' definition is that like Huizinga's definition, it is too broad for our purposes. In *Man, Play, and Games*, Caillois includes under the rubric of play activities such as theater and informal rough-housing. Although these activities might be considered play, we are looking for a definition that more narrowly addresses the particular instance of games.

#### **Definition 5: Bernard Suits**



Bernard Suits is a philosopher with a strong interest in games. His playful book *Grasshopper: Games, Life, and Utopia* is a retelling of the Grasshopper and the Ants fable; it is also a deep investigation into the nature of games. Suits offers this definition of games:

To play a game is to engage in activity directed towards bringing about a specific state of affairs, using only means permitted by rules, where the rules prohibit more efficient in favour of less efficient means, and where such rules are accepted just because they make possible such activity.<sup>8</sup>

—or more succinctly—

I also offer the following simpler and, so to speak, more portable version of the above: playing a game is the voluntary effort to overcome unnecessary obstacles.<sup>9</sup>

Although Suits' definitions sound abstract, he is covering familiar territory. Here are the primary elements from both versions:

- *Activity*: as with Abt, Suits emphasizes the activity of playing a game;
- *Voluntary*: games are freely entered into;
- *A specific state of affairs*: games have a goal;
- *Rules*: as in the previous definitions, Suits identifies rules as a component of games;
- *Inefficiency*: the rules of games limit behavior, making it less efficient;
- *Rules are accepted*: playing a game means accepting the rules.

Other definitions have included many of these elements: the fact that a game is an activity, that it is voluntary, has a goal, and involves rules. However, Suits adds some new ideas to the mix. When he states that “the rules prohibit more efficient in favour of less efficient means . . . such rules are accepted just because they make possible such activity,” he is referring to what he calls the *lusory attitude*, the peculiar state of mind of game players. Part of the lusory attitude is that the rules of a game make play inefficient: if a runner wanted to cross the finish line as efficiently as possible, she might leave the track and cut across the field—but the rules tell her to stay within the white lines. Another component of the lusory attitude is that players accept these rules, taking on the “unnecessary obstacles” of a game simply because they make play possible. Suits is actually pointing to the way that games create *meaning* as players accept these rules, goals, and obstacles in order to play.

As insightful as this definition is, it is important to note that Suits does not ultimately offer a definition of game, but a definition of the act of *playing a game*. In fact, the definitions of Huizinga and Caillois similarly focus on the activity of play rather than on games themselves. However, the next two definitions will bring us closer to the territory of games themselves.

### **Definition 6: Chris Crawford**

Chris Crawford is a pioneering computer game designer who has written extensively about

game design, narrative, and interactivity. In his influential book *The Art of Computer Game Design*, Crawford does not offer a succinct definition of games, but he does list four primary qualities that define the category of things we call games: representation, interaction, conflict, and safety. We have pulled together excerpts from the first chapter of his book, where he summarizes these four qualities:

*Representation:* A game is a closed formal system that subjectively represents a subset of reality. By “closed” I mean that the game is complete and self-sufficient as a structure. The model world created by the game is internally complete; no reference need be made to agents outside of the game. By formal I mean only that the game has explicit rules. A game’s a collection of parts which interact with each other, often in complex ways. It is a system. A game creates a subjective and deliberately simplified representation of emotional reality.<sup>10</sup>

*Interaction:* The most fascinating thing about reality is not that it is, or even that it changes, but *how* it changes, the intricate webwork of cause and effect by which all things are tied together. The only way to properly represent this webwork is to allow the audience to explore its nooks and crannies, to let them generate causes and observe effects. Games provide this interactive element, and it is a crucial factor in their appeal.<sup>11</sup>

*Conflict:* A third element appearing in all games is conflict. Conflict arises naturally from the interaction in a game. The player is actively pursuing some goal. Obstacles prevent him from easily achieving this goal. Conflict is an intrinsic element of all games. It can be direct or indirect, violent or nonviolent, but it is always present in every game.<sup>12</sup>

*Safety:* Conflict implies danger; danger means risk of harm; harm is undesirable. Therefore, a game is an artifice for providing the psychological experiences of conflict and danger while excluding their physical realizations. In short, a game is a safe way to experience reality. More accurately, the results of a game are always less harsh than the situations the game models.<sup>13</sup>

We can consider each of these four qualities separately. Crawford’s notion of *representation* is reminiscent of the quality of make-believe listed by Caillois. But Crawford takes the concept one step further, linking the game’s capacity for representation directly to its rules, and to its status as a *system* of interlocking parts. In fact, Crawford’s definition is the first to explicitly call games a system, perhaps because he is the first of these authors writing from a digital game point of view. Tied closely to the systemic nature of games is Crawford’s element of *interaction*. His scheme of interactive “cause and effect” parallels the ideas of action and outcome outlined in the previous chapter.

Crawford’s definition names *conflict* for the first time. Although Parlett’s “contest to achieve an objective” and Abt’s “contest among adversaries” imply conflict, Crawford names conflict explicitly, linking it directly to the fact that games have goals. His final characteristic of games, *safety*, echoes the emphasis made in other definitions on the artificiality of games, that they take place in a space and time separate from ordinary life. Although these four characteristics describe games, they are not, strictly speaking, definitional.

### **Definition 7: Greg Costikyan**

Greg Costikyan, a game designer and writer who has authored many articles on games, proposes a definition for the term in his essay, “I Have No Words and I Must Design.”<sup>14</sup>

A game is a form of art in which participants, termed players, make decisions in order to manage resources through game tokens in the pursuit of a goal.

The key terms in this definition are:

- *Art*: games are identified as a form of culture;
- *Decision-making players*: games require active participation as choices are made;
- *Resource management*: player decisions hinge on manipulating resources;
- *Game tokens*: the means by which players enact their decisions;
- *Goal*: a game has an objective.

Like Crawford, Costikyan is influenced by digital game design and shares an emphasis on the decision-making, interactive quality of game playing. Although his acknowledgement of the goal of a game is something mentioned in other definitions, Costikyan's formulation has a number of unique elements. For example, his is the only definition to leave out the special quality of rules in defining a game. Also notable is a detailed explication of the systemic quality of a game: the way that players manage game resources through game tokens. Costikyan is also the only writer to link games to art, or to any other cultural practice, for that matter. While we also emphasize the fact that games are cultural, Costikyan's decision to associate games with "art" is less useful for our purposes. Labeling games as art embroils them in contemporary debates about games and art, high culture and low culture, and the social status of games. Undoubtedly, this is Costikyan's provocative intention.

### **Definition 8: Elliot Avedon and Brian Sutton-Smith**

Brian Sutton-Smith is perhaps the most prolific and important scholar of play and games in the twentieth century. In *The Study of Games*, which Sutton-Smith co-edited with Elliot Avedon, the authors present an extremely concise and powerful definition of games:

Games are an exercise of voluntary control systems, in which there is a contest between powers, confined by rules in order to produce a disequibrial outcome.<sup>15</sup>

The key elements of this definition are:

- *Exercise of control systems*: games involve some form of physical or intellectual activity;
- *Voluntary*: games are freely entered into;
- *Contest between powers*: games embody a conflict between players;
- *Confined by rules*: the limiting nature of rules is emphasized;
- *Disequibrial outcome*: the outcome of a game is a goal-state which is different than the starting state of the game.

Although none of these elements are wholly original to this definition, the strength of Avedon and Sutton-Smith's formulation is that it is compact, clear, and addresses games themselves, rather than the activity of playing them. Elegantly narrow in scope, their definition clearly demarcates games from less formal play activities. On the other hand, it doesn't contain all of

the elements found in other definitions. Perhaps it is time to step back and take stock.

Elements of a game definition	Parlett	Abt	Huizinga	Caillouis	Suits	Crawford	Costikyan	Avedon   Sutton-Smith
Proceeds according to rules that limit players	√	√	√	√	√	√		√
Conflict or contest	√					√		√
Goal-oriented/outcome-oriented	√	√			√		√	√
Activity, process, or event		√			√			√
Involves decision-making		√				√	√	
Not serious and absorbing			√					
Never associated with material gain			√	√				
Artificial/Safe/Outside ordinary life			√	√		√		
Creates special social groups			√					
Voluntary				√	√			√
Uncertain				√				
Make-believe/Representational				√		√		
Inefficient					√			
System of parts/Resources and tokens						√	√	
A form of art							√	

### A Comparison

The chart above summarizes the elements of a game, as described in each of the definitions.

In simplifying complex ideas to a grid of common elements, much of the context and subtlety of the authors' ideas is clearly lost. Each author defines games for particular reasons within specific contexts; for example, with the exception of Chris Crawford and Greg Costikyan, none of the authors are operating from within the field of game design. On the other hand, this cannibalistic dissection of their approaches to defining games yields some interesting comparative results. All of the authors except Costikyan include rules as a key component. Beyond this there is no clear consensus. Although 10 of the 15 elements are shared by more than one author, apart from rules and goals, there is no majority agreement on any one of them.

It is clear that not all of the elements need to be included in a definition of game. Some elements, such as games being voluntary or inefficient, do not seem to apply to all games. Others, such as the fact that games create social groups, describe the effects of games rather than games themselves. Still other elements, such as the representational or make-believe

quality of games, appear in many other media and do not help differentiate games from other kinds of designed experiences.

## Our Definition

Cobbling together elements from the previous definitions and whittling away the unnecessary bits leaves us with the following definition:

**A game is a system in which players engage in an artificial conflict, defined by rules, that results in a quantifiable outcome.**

This definition structurally resembles that of Avedon and Sutton-Smith, but contains concepts from many of the other authors as well. Here are the definition's primary ideas:

**System:** We introduced the concept of a system in [chapter 5](#). Systems are fundamental to our approach to games.

**Players:** A game is something that one or more participants actively play. Players interact with the system of a game in order to experience the play of the game.

**Artificial:** Games maintain a boundary from so-called “real life” in both time and space. Although games obviously occur within the real world, artificiality is one of their defining features.

**Conflict:** All games embody a contest of powers. The contest can take many forms, from cooperation to competition, from solo conflict with a game system to multiplayer social conflict. Conflict is central to games.

**Rules:** We concur with the authors that rules are a crucial part of games. Rules provide the structure out of which play emerges, by delimiting what the player can and cannot do.

**Quantifiable outcome:** Games have a quantifiable goal or outcome. At the conclusion of a game, a player has either won or lost or received some kind of numerical score. A quantifiable outcome is what usually distinguishes a game from less formal play activities.

For the rest of this book, this definition is what we mean when we say “game.” It applies to all kinds of games, from computer and video games to parlor games and sports. We can also use this definition to define the field of study at the center of this book:

**Game design is the process by which a game designer creates a game, to be encountered by a player, from which meaningful play emerges.**

Aren't you happy to finally know what it is this book is about?

## The Puzzle of Puzzles

This definition of games is intentionally quite narrow. It is not our intent to understand the broad phenomena of play, but instead to clearly demarcate the realm of games and game design. But is the definition *too* narrow? Are there things that are clearly games but that don't fit this definition? This chapter on defining games concludes by looking at two kinds of game-activities that may or may not fit into the category of games this definition delineates. These “limit cases” will help clarify how this definition can help us investigate game-like phenomena.

First, puzzles. According to puzzle and game designer Scott Kim, puzzles are different from games because puzzles have a correct answer or outcome. Think of a crossword puzzle: the puzzle designer creates the correct answer, and the player's activity consists of trying to reconstruct that answer. This is a very different situation than a game of Poker, for example, in which there is no fixed "right answer" posed by the creator of the game. Instead, in Poker, players make complex decisions at every moment, taking into account the evolving dynamics of the game.

But this does not mean that a puzzle is not a game. Recall our definition:

**A game is a system in which players engage in an artificial conflict, defined by rules, that results in a quantifiable outcome.**

A crossword puzzle contains all of the elements of this definition. It is a system of squares, letters, and clues, in which a player follows rules in order to arrive at an appropriate outcome. Although the conflict is between the player and the system rather than between a set of players, a crossword puzzle is most certainly a game. In fact, all kinds of puzzles are games. They might be considered a special subset of games, but they clearly meet the requirements of the definition.

Sometimes, it is difficult to determine whether or not a game is a puzzle. In his article, "What is a Puzzle?"<sup>16</sup> Kim references game designer Kevin Maroney, who points to Solitaire as a borderline case. If we think about Solitaire as an open-ended activity that can play out in many ways, it is not a puzzle. On the other hand, as Kim states, "in fact it is a kind of puzzle, since any given deck has a definite solution (or sometimes no solution). Shuffling the cards is a way to randomly generate a new puzzle."<sup>17</sup>

We are not going to split hairs. In our opinion, all puzzles are games, although they constitute a special kind of game. Thinking about a game as a puzzle, a game with a correct answer or set of answers, can be a useful way to frame a game. For example, is your 3D adventure game lacking a sense of play? Perhaps it is too puzzle-like, with all of the outcomes predetermined, and you need to ease the overall design away from puzzle territory. Alternately, if your adventure game feels too open-ended, perhaps you can inject some puzzle-like game play into it and better shape the player's sense of accomplishment. The idea of the "puzzle" can be a helpful way to frame game design problems.

### **Role-Playing Games**

The second game "limit case" is role-playing games. Off the computer, these are games such as Dungeons & Dragons, in which players are cast as characters in an imaginary world. Digital role-playing games can be single-player adventures like the classic Ultima games, or multiplayer community worlds like EverQuest. In both cases, the player controls and evolves a character over time within a narrative setting.



Role-playing games (or RPGs) certainly have the trappings of games. A paper-based, tabletop RPG usually involves dice, rulebooks, statistics, and a fair amount of strategic play. Role-playing games clearly embody every component of our definition of game, except one: a quantifiable outcome. As an RPG player, you move through game-stories, following the rules, overcoming obstacles, accomplishing tasks, and generally increasing the abilities of your character. What is usually lacking, however, is a single endpoint to the game. Role-playing games are structured like serial narratives that grow and evolve from session to session. Sometimes they end; sometimes they do not. Even if a character dies, a player can rejoin as a different character. In other words, there is no single goal toward which all players strive during a role-playing game. If a game does end, it does not do so quantifiably, with players winning or losing or receiving a score. Gary Gygax, co-designer of *Dungeons & Dragons*, would concur: “Advanced Dungeons and Dragons is, as are most role-playing games, open-ended. There is no ‘winner,’ no final objective, and the campaign grows and changes as it matures.”<sup>18</sup> This is true of both digital and non-digital multiplayer RPGs. (Note that single-player digital RPGs are structured differently—usually with an adventure game-style winning outcome.)

From this description, it would appear that multiplayer role-playing games are not, in fact, games. But this seems like a ridiculous conclusion, because RPGs are so closely bound up in the development of games and gaming culture. Our position is this: RPGs can be framed either way—as having or not having a quantifiable outcome. If you look at the game as whole, there may not be a single, overriding quantifiable goal. But if you consider the session-to-session missions that players complete, the personal goals players set for themselves, the levels of power that players attain, then yes, RPGs do have quantifiable outcomes. In this sense, an RPG is a larger system that facilitates game play within it, giving rise to a series of outcomes that build on each other over time. Game designer Greg Costikyan puts it this way: “No victory conditions, true. But certainly [RPGs] have goals; lots of them, you get to pick. Rack up the old experience points. Or fulfill the quest your friendly GM has just inflicted on you. Or rebuild the imperium and stave off civilization’s final collapse. Or strive towards spiritual perfection. Whatever.”<sup>19</sup>

It is possible, of course, for RPGs to become more game-like. At game conventions, there are often “tournament-style” games, in which players or teams earn points for completing certain actions and accomplishing goals, and a single winner can in fact be declared. Conversely, there are RPGs that de-emphasize power, statistics, and advancement and instead focus on storytelling and narrative. This form of RPG seems very unlike games as we have defined them.

Role-playing games are not the only kind of play activity that exists on the border of our definition. A computer program like *Sim City* does not have explicit goals, and in that way is more like a toy than a game. However, as its designer Will Wright has often stated, players can turn it into a game by constructing their own goals. Does this make *Sim City* an informal play activity or a formalized game? It all depends on how it is framed.

Sometimes the answer to the question of whether or not a game is a game rests in the eye of the beholder. Any definition of a phenomena as complex as games is going to encounter instances where the application of the definition is somewhat fuzzy. Rather than seeing these moments as a breakdown of the definition, we view them as valuable opportunities to understand games as a whole. The terrain along the borders of more rigid definitions offers fertile ground for insight and investigation. In these playful and liminal spaces, assumptions are challenged, ideas evolve, and definitions change. It is this kind of transformative play that is at the heart of our model of game design.

## Further Reading

*Man, Play, and Games*, by Roger Caillois

A book that builds directly from the work of Johann Huizinga's *Homo Ludens*, *Man, Play, and Games* by philosopher Roger Caillois has a similar agenda: to identify and analyze the general phenomenon of play and locate its larger significance within culture. For our purposes, his early chapters on defining and classifying games are the most useful, providing insightful typologies and definitions for understanding play in and out of games.

*Recommended:*

I. The Definition of Play

II. The Classification of Games

## Notes

1. David Parlett, *The Oxford History of Board Games* (New York: Oxford University Press, 1999), p. 1.
2. Ibid. p. 3.
3. Clark C. Abt, *Serious Games* (New York: Viking Press, 1970), p. 6.
4. Ibid. p. 7.
5. Ibid. p. 7–9.
6. Johann Huizinga, *Homo Ludens: A Study of the Play Element in Culture* (Boston: Beacon Press, 1955), p. 13.
7. Roger Caillois, *Man, Play, and Games*, Translated from the French by Meyer Barash (Champaign: University of Illinois Press, 2001), p. 9–10.
8. Bernard Suits, *Grasshopper: Games, Life, and Utopia* (Boston: David R. Godine, 1990), p. 34.
9. Ibid. p. 41.
10. Chris Crawford, *The Art of Computer Game Design*,  
<<http://www.vancouver.wsu.edu/fac/peabody/gamebook/Coverpage.html>>
11. Ibid.
12. Ibid.
13. Ibid.
14. Greg Costikyan, "I Have No Words and I Must Design." *Interactive Fantasy* #2, 1994  
<[www.geocities.com/SiliconValley/Bay/2535/nowords.html](http://www.geocities.com/SiliconValley/Bay/2535/nowords.html)>.
15. Elliott Avedon and Brian Sutton-Smith, eds, *The Study of Games* (New York: John Wiley & Sons, 1971), p. 405.
16. Scott Kim, "What is a Puzzle?" [www.scottkim.com/articles.html](http://www.scottkim.com/articles.html).
17. Ibid.
18. Gary Gygax, *Advanced Dungeons and Dragons Players Handbook* (Lake Geneva: TRS Hobbies, 1978), p. 7.
19. Costikyan, "I Have No Words and I Must Design." <http://www.geod-ties.com/SiliconValley/Bay/2535/nowords.http>.

## Defining Games

## SUMMARY



- The words **play** and **games** have a unique relationship in the English language. There are two ways to frame their relationship, both of which are useful:
  1. **Games are a subset of play:** The category of play represents many kinds of playful activities. Some of these activities are games, but many of them are not. In this sense, games are contained within play.
  2. **Play is a subset of games:** Games are complex phenomena and there are many ways to frame them and understand them. **RULES, PLAY, and CULTURE** are three aspects of the phenomena of games. In this sense, play is contained within games.
- *A game is a system in which players engage in an artificial conflict, defined by rules, that results in a quantifiable outcome.* The key elements of this definition are the fact that a game is a *system*, *players* interact with the system, a game is an instance of *conflict*, the conflict in games is *artificial*, *rules* limit player behavior and define the game, and every game has a *quantifiable outcome* or goal.
- A **puzzle** is a special kind of game in which there is a single correct answer or set of correct answers. All puzzles are games.
- Multiplayer **Role-playing games** (RPGs) do not clearly possess a quantifiable outcome. Whether or not they fit the definition of a game depends on how they are framed. As with other open-ended game-like experiences such as Sim City, RPGs have emergent quantifiable goals but usually no single overriding outcome.