

Game Design vs. Level Design

It is often asserted that level design is a *subset* of game design. This is mirrored in the game industry, where, at the time of writing this book, level design does not have the same status as game design, and often, level designers have to aspire to game design roles to progress in their career. The pay grades within the industry enforce this bias, as well; a game designer will typically earn more money than a level designer. This situation is very unfortunate and based on a number of misunderstandings or misconceptions. Among these are that game design “trumps” level design, or that level design work is somehow subordinate to, or simpler than, game design. This assertion misses an important aspect of level design: it should not be underestimated how much of an impact level design has on a game. It is a well-known truism that:

Bad level design can ruin a good game.

If this is true (it is), the impact of a game’s level design is as strong as that of the game design. Conversely, we can therefore say:

A bad game cannot be saved by good level design.¹

The two statements seem to put level design and game design on somewhat equal footing, at least in terms of impact on the development of the game itself. It is clear that game design and level design are not the same discipline. However, they clearly cannot exist without each other. There is an interrelationship at work that operates on a deep and fundamental level. It is useful to try to find a way to interpret both fields and show how they are interconnected and what sort of relationship they form. To make this possible, we must have a look at the basic function that both fields perform.

¹ Although it can be argued that good level design can make a mediocre game enjoyable.

The Function of Game Design

There are many differing interpretations of what game design actually is; some are derived from detailed academic studies, while others come from experienced game designers who have gained their knowledge through practical application. The sheer amount of differing definitions almost inevitably leads to as many disagreements and arguments, although many disagreements seem to arise as much out of semantic differences as out of interpretive ones. The various game design definitions can arise from origins including ideology, commercial function, or practical analysis.

Because of this lack of consensus, and because of the sheer number of proposed definitions, there is currently no easily identifiable unifying concept of what constitutes *gameplay*, let alone *game design*. There are many sizeable books and academic studies devoted to games and gameplay but they often contradict each other and in some cases even attack each other. This presents a problem, since game design and level design are interrelated, and we need to agree upon a certain amount of theoretical common ground to formulate workable universal (or at least wide ranging) theories and techniques. So despite the lack of a universally accepted view on games and gameplay, we should nonetheless examine the diversity of opinion more closely. Even if no definitive consensus can be agreed upon by *everybody* in the field, we should still aim to find commonalities and individual defining features that can be used for the purpose of this book. Perhaps by looking at all the differing ideas on what constitutes a game or gameplay, we can derive a useful set of descriptions that can be used to characterize the *function* of game design.

Definitions

One of the most famous definitions of game design is the one from Sid Meier that states that:

A game is a series of interesting choices.

Further explanation of “interesting” often includes the following qualifiers:

- No choice should be consistently better than the others. (Or it would make the other choices uninteresting or redundant.)
- The choices shouldn’t be the same. (It becomes meaningless to differentiate between choices.)
- Choices must be informed. (Lest they become arbitrary or random.)

On the surface, this rings true. People are easily engaged in gameplay when they are mentally challenged in an interesting way, especially if this is done in such a

way that the player stays engaged. Chess, for example, keeps the player engaged by the multitude of options available, made interesting by the far-reaching strategic and tactical consequences within the game. Unfortunately, this description of a game or gameplay is not all-encompassing; it simply doesn't always apply, something that I am sure Sid Meier himself would agree with.

Jesper Juul offers this:

But some games do away with interesting choices altogether. The object of the music/rhythm games Dance Dance Revolution and Vib-Ribbon is simply to hit the right buttons on the PlayStation controller or dance mat at the correct time. These games do in fact not contain any interesting choices whatsoever - but performing the non-interesting choices is marked by some other form of enjoyment, namely that of being in time with the music. They are still enjoyable games, which goes to prove that interesting choices is not all there is to it.²

Unfortunately, within the field of game design, both in a practical professional sense, as well as within the academic realm, there is no clear consensus on the nature of game design, partially because it is hard enough to find agreement on what it is that constitutes a *game*! To illustrate this point further, when I started to research game definitions for this book in the hope to shed some light on the topic, I found, much to my irritation, that I couldn't find much overlap between differing viewpoints. Instead, many views were contradictory, even when they tried to incorporate as many "accepted" elements as possible. Several people who have spent more time than me trying to define games have commented on this.

Katie Salen and Eric Zimmerman, in their book "Rules of Play," formally compared eight notable definitions or descriptions of games and put the defining characteristics in a comparative grid. This is one of their conclusions:

All of the authors except Costikyan include rules as a key component. *Beyond this there is no clear consensus.*³ 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. (*Emphasis mine.*)⁴

² Jesper Juul, "Just What Is It That Makes Computer Games So Different, So Appealing?" *IGDA The Ivory Tower*, April 2003, available at http://www.igda.org/columns/ivory-tower/ivory_Apr03.php.

³ Nonetheless, the authors then proceed to create a definition of games that is easy to disagree with.

⁴ Katie Salen and Eric Zimmerman, *Rules of Play: Game Design Fundamentals*, MIT Press, Cambridge, MA, 2004, p. 93.

Perhaps a definition of games is too much to ask for, as it is clear that it cannot be unambiguously captured within a single concept. The same is true for the concept of *play*, which is very much related, of course. It is, however, a topic that is unsurprisingly, discussed as fiercely as that of game definition. Unsurprisingly, because gameplay is the logical consequence of a game, and therefore they seem to be aspects of the same thing, leading to the same disagreements. Isn't it fair to say that games cannot exist without gameplay? It is clear that play is central to the experience. But is it the defining element? It is, according to some game researchers who argue that exact point. But what of other elements often represented within games? For example, what of the narrative elements present in many game types? Once again, disagreements or lack of consensus come to the fore.

Ludologist vs. narrativist perspectives

As much as is the case of practical game development or commercial game funding, some disagreements within academic circles are quite profound. A good example of this can be found in the differing viewpoints often attributed to the *ludologists* and the *narrativists*.⁵ There is a disagreement that stems from a different interpretation of what games are, and within which context to place the play experience, a disagreement that has led to many articles and books, impassioned speeches, and even heated arguments. Although their defining features are often contested, they seem to be most clearly understood as follows.

Ludology is: A branch of game studies that approaches the subject through the prism of *play*.

While narrativism is: A branch of game studies that approach the subject through the prism of *narrative*.

This sounds straightforward enough, yet it has led to many, sometimes ill-tempered disputes. Let's look at the opinion of Michael Mateas,⁶ who offers the following on narrativism:

The narrativists generally come out of literary theory, take hypertext as the paradigmatic interactive form, and use narrative and literary theory as the foundation upon which to build a theory of interactive media.

And on ludologists:

Ludologists generally come out of game studies [e.g., Avedon and Sutton-Smith 1971], take the computer game as the paradigmatic

⁵ Narrativism is also often referred to as *narratologism*.

⁶ A scholar active in the field of artificial intelligence, among other things, and one of the authors of *Façade*, an experimental interactive drama (*Façade* can be downloaded here: <http://www.interactivestory.net/>).

interactive form, and seek to build an autonomous theory of interactivity.⁷

In some instances, ludologists have placed themselves in direct opposition to narrativist thinking, and vice versa. Differences between ludologist and narrativist thinking have produced so much friction that some even started attacking each other's viewpoints in public. (I am not going to go into specific examples, but things got quite heated.)

Ultimately, in the eyes of many, neither view is correct, or rather, they are both right and wrong at the same time, insofar as they both focus on legitimate aspects of the equation but try to invalidate other equally appropriate ones. (I am old and wise enough, however, to leave this debate to those willing to spend their time on it.)

Far from being the only positions available, the narrativist vs. ludologist standpoints illustrate how deeply entrenched people can become in their very particular beliefs about games and gameplay. It is notable that in many ways, both parties to some degree perpetuate a false dichotomy. Most narrativists, for example, don't deny the relevance of play, just the weight and importance given to it by some ludologists. We can still agree that play is fundamental to games, while also acknowledging the importance of narrative within a gaming experience. Narrative, however, will be discussed in detail in its own section of the book: Part IV, Chapter 12.

To be fair, much of this debate is suspect insofar as that often, when pressed, it seems there is only limited disagreement, which often stems from methodological issues more than from anything else.

Gonzalo Frasca states in the abstract of one of his articles:

During the last few years, a debate took place within the game scholars' community. A debate that, it seems, opposed two groups: ludologists and narratologists. Ludologists are supposed to focus on game mechanics and reject any room in the field for analyzing games as narrative, while narratologists argue that games are closely connected to stories. This article aims at showing that this description of the participants is erroneous. What is more, this debate as presented never really took place because it was cluttered with a series of misunderstandings and misconceptions that need to be clarified if we want to seriously discuss the role of narrative in video games.⁸

⁷ Michael Mateas, "Michael Mateas Responds in Turn." *Electronic Book Review*, <http://www.electronicbookreview.com/thread/firstperson/bestyled>, 2004.

⁸ Gonzalo Frasca, "Ludologists Love Stories, Too: Notes from a Debate That Never Took Place," *Ludology.org*, http://ludology.org/articles/Frasca_LevelUp2003.pdf, 2003.

Even though the dust has now settled a bit, it is worth reflecting on how difficult matters of definition can be, and game-related definitions are notoriously hard, by any standard.

External Goals

Since we are looking at matters of *function* and *purpose*, we should look at game design's external goals. If we know what game design is supposed to *achieve*, we have a much better idea of game design function. External goals are as fundamental as describing what something is *for*, and *how* this is achieved. Let's take a real world example: a *chair's* design, and use it as a simple test case.

A chair's design is subject to many requirements, but the main identifiable goal is to allow a person to sit on it. An observation that may be banal in its simplicity, but one that needs to be noted, nonetheless.

This basic goal leads to other related requirements that describe what the chair has to be:

- strong enough to take the weight of most people,
- stable,
- affordable,
- moveable,
- aesthetically pleasing.

At this point, a designer comes in and starts to formulate these external goals and requirements in a number of functional designs. Regardless of the content of those designs, the design's *function* or *purpose* is partly described by these external rules.

The same principle occurs in game design. The basic function of a game determines the *game design's* function. So a first step in game design is to correctly identify the game's external goals and to interpret those in such a way that they get represented well in the game's rules.

This means, for example, that a game whose defining external goals are of a commercial nature will end up radically different from a game whose external goals are centered on delivering, for example, a disturbing artistic narrative.

If we decide that the main defining external goals are simply aimed at gameplay and profit, and if we apply the chair analogy to a game, we could state that the game exists in order to *provide a fun and profitable gameplay experience*.

This then leads to other related requirements that describe what the game has to be:

- pretty,
- easy to learn,

- hard to master,
- of sufficient quality,
- showcase high production values,

and so on.

It is important, however, not to confuse these with the game's internal or intrinsic goals.

Gameplay Goals

It has been noted earlier that a defining feature of most games is that they have goals. These are the level design or general gameplay objectives that the game itself presents to the user. We encounter these all the time, and it is easy to name typical examples. Take the following list of player objectives:

- Attain the high score.
- Unlock the dungeon.
- Defeat the boss character.
- Win the race.
- Score more goals than your opponent.
- Explore the environment.
- Shoot the enemy soldiers.

Most gameplay is driven by these kinds of explicit objectives and motivations for the player, a fact that is hardly controversial. To the level designer, however these goals must be *designed*. And in order for them to be designed, they need to have a logical source or reason to be included in the levels. This reason is generally found in the game's internal or intrinsic goals.

Internal goals

These are similar to a game's external goals, insofar as they describe high level goals from which we can derive gameplay requirements. The difference with external goals lies in the fact that internal goals govern the high level goals that are directly related to aspects of the game and gameplay itself, as opposed to external factors. They tend to cover things like the following:

- Empower the player.
- Teach the player how to have fun with the game.
- Don't break the player's suspension of disbelief.
- Give the player a sense of achievement.
- Reward the player for exploration.
- Provide addictive, fun gameplay.

We will look in more detail at these kinds of goals and how they fit in a development and level design hierarchy in Chapter 3.

Defining Goals and Designing Rules

What all this tells us is that both internal and external goals are part of game design *function*. It describes functional necessity related to gameplay AND related to the game's more existential⁹ goals, like turning a profit or making a particular artistic statement.¹⁰ Goals like these are useless by themselves unless they get translated into actions. How do we achieve these goals? In the case of game design, this means that once the external or *meta* goals have been defined, the designer needs to design the actual game, which means designing the game's *rules* in such a way that they best support the external goals.

Rules

A fundamental aspect shared by most, although not all, video games, is that they adhere to a formal set of rules. Games without rules can exist, but they are either very abstract in form, or function more on the level of toys. Nonetheless, it cannot be denied that by far the majority of all games, not just video games, are based on or reliant on a *formal set of rules*, often predetermined, that the player has to follow in order to successfully play the game.

Some people go even further and argue that games cannot exist without rules:

Rules are what differentiate games from other kinds of play. Probably the most basic definition of a game is that it is organized play, that is to say rule-based. If you don't have rules you have free play, not a game. Why are rules so important to games? Rules impose limits—they force us to take specific paths to reach goals and ensure that all players take the same paths. They put us inside the game world by letting us know what is in and out of bounds.¹¹

However, this construction of formal game rules is completely abstract until executed in *play*. This is similar to theater, where the actual *play* does not exist until the *performance* takes place. The text of the play can be read in its own right, of

⁹ Suggestions for a less pompous term are welcome.

¹⁰ Chapter 3, "Level Design Goals and Hierarchies," will cover these subjects in much more detail, focusing both on external and internal goals and how they relate to level design.

¹¹ Marc Prensky, *Digital Game-Based Learning*, McGraw-Hill, New York, 2001, p. 14.

course, but the actual *theatrical play* only takes place during the performance. The same is true for games. Although a game's design may be able to formalize the rules of the game, until actual play occurs, this design is unfulfilled, and in many ways the game itself is *incomplete*. Game design facilitates play by designing rules under which play can *occur*.¹²

A quick word on toys

Toys are often excluded from definitions of games because they don't have a set of formalized rules associated with them. This is true to a degree but is somewhat misleading. It is more accurate to say that toys don't have a set of *predetermined rules* associated with them. This does not stop those who play with toys from formulating their own rules spontaneously at the time of play. The end result is the same as in other games: the player is actively engaged in gameplay. The newly formalized rules may be simple, for example a game of catch between two, such as parent and child, but they are gameplay rules nonetheless.

The conclusion that follows from this is that toys are *facilitators of games that ask players to define their own rule set*. Crucially, the player(s) temporarily take on the guise of game designer and level designer.

Game Design Function Summary

It appears to be difficult to agree on a definitive view on what games are. There are countless definitions of games and their associated viewpoints, and they often are in disagreement with each other. But study of games, gameplay, and game rules shows that there are a number of commonalities that can be highlighted:

- Play is central to games.
- Diverse and unrelated goals can motivate the production of games.
- Most games rely on rules, or facilitate the definition of them.

If seen in this light, we can describe a game as featuring: *an often predetermined, agreed-upon set of rules, which are designed to facilitate gameplay. The motivation behind the creation of a game itself can be diverse, for example including commercial, educational, artistic, or other elements.*

All of these elements are individually fairly obvious; yet taken as a whole, they spell out something fairly useful with regards to finding a workable concept of the function of game design. Within all of these observations lies an answer to the question about game design's *function* or *purpose*, because they describe what a designer needs to *achieve*.

¹² It is also good to note that just *facilitating* play is not enough to guarantee a *good* game.

Ultimately, a game designer is the person who determines the rules by which a game is formulated, in order to achieve the goals for which it is created. And in some ways, a *good* game designer is one who is good at determining what rules are appropriate for the desired gameplay.

A game design is a coherent set of rules that formalizes a game's content in such a way that it facilitates appropriate gameplay, in order to achieve the game's fundamental goals.

The Function of Level Design

Now that we have spent considerable time looking at game design function, we need to compare this with *level design function*. We have seen that in game design it is very important to define what the game's external goals are and design rules of play that correctly support them. Questions about level design in many ways seem to start from a completely opposite position. The rules of play are a *known*. How else can we construct a level if we don't already know what rules it has to facilitate?¹³

On closer inspection, however, we are left with a similar definitional problem as we had at the beginning of this chapter with regard to game design. Where *does* the rubber hit the road? How do we define this? Instead of trying to find an ultimate definition of level design, I would like to focus, just as we did with game design, on finding a useful description of the *function* of level design. The reason for trying to formulate an overall function or purpose for level design is that it should give us a way to determine what is within the level designer's responsibilities. This will give us more than a job description; it gives us a conceptual framework within which we can do our work. This is something that may sound unimportant on paper, but is nonetheless of vital importance in practice when we need to defend or explain our professional or artistic choices. (Even in those cases when we have to justify them to ourselves.) Or to put it in less dramatic terms; it gives us a practical framework through which we can approach level design.

A useful start to this endeavor is to look at level design in a historic context.

Level Design in a Historic Context

It is beyond the scope of this book to provide a complete history of level design, although it would be a fascinating project to attempt to do so. Instead, a short

¹³ Scarily, in commercial level design, one is often asked to design levels without a clear understanding of the final gameplay parameters.

look at a number of historically interesting examples of level design or related fields will have to do.¹⁴ Even this limited focus should produce some insights, as there is much to be learned. At the least, it should provide us with some historic context in which we can place level design.

Sports

Almost all sports take place within defined spaces. And, more importantly, most sports take place in *designed* spaces. At some point in time, somebody actually decided on the dimensions of a soccer field, the size of a hockey goal, or the placement of hurdles in an equestrian¹⁵ course. How these original decisions by proto-level designers were made we don't always know, but it is clear that they allow for an important function of sports: competition. In order to compete under fair terms, their design allows a level *playing field*. (A term that sounds much like a video game *level* to me.) A sporting field or environment usually cannot be altered or bypassed by the participants of the sport. It is literally *against the rules*, and the offender typically gets punished heavily or even disqualified from participating further.

Board-game layouts

Board-game design is even closer to level design for video games, partly because it allows the creation of an *abstract representation* of an environment. There is not always a need to create a field of even grassland with play zones demarcated by chalk lines, or to run divisions of soldiers through complex tactics and strategy drills out in some field, if a similar effect can be created by an approximation or an abstraction in the form of a board game. Chess, for example, is a good case; the game portrays warfare and enhances strategic thinking, despite using a playing area that is rather abstract.

Furthermore, board games provide scope to introduce elements of the fantastic into play. In the context of a board game, it is fine to teleport players through the world, or to introduce mythical monsters as adversaries. A board game can introduce elements of chance (pick a card) and encourage the use of avatars.¹⁶ Many of these choices are affected by the board's layout, which had to be *designed* at one point in time. Literally thousands of board games have been designed through the years, and the inherent level design choices that were made provide a rich source of information. They are especially interesting from a historic point of view, because they go back many hundreds of years.

¹⁴ I do encourage people to do some of their own research in this area.

¹⁵ Am I the only person who thinks of a platform game when these horses jump?

¹⁶ A game piece that represents the player.

A good exercise for budding level designers would be to choose any board game, try to find out why the board was designed the way it was, and try to improve on its design. This is a guaranteed way to improve as a level designer¹⁷ and as a byproduct is likely to teach some appreciation of board game designers, as well.

Pinball machines

Another beautiful example of proto-level design can be found in pinball games. The basic rules of pinball games can be summed up on the back of a napkin. As a set of rules describing a game, there really isn't much to it. Yet many hundreds of iterations of such games have successfully persuaded players all over the world to feed them coins. There are a huge number of pinball tables whose layout and content design, or in other words, their *level design*, showcases new and successful interpretations of those old and basic rules. The player still controls flippers, the table is still slanted so the ball rolls down, and the game offers three "lives" to earn a maximum amount of points.

Yet there is no shortage of unique and wildly differing pinball tables. Together, they provide an interesting and enduring example of an *interactive* game type that predates video games.

Dungeons and Dragons

In 1974, Gary Gygax and Dave Arneson designed a new type of game still enjoyed proudly by the geek tribes of the world. They created one of the first successful pen-and-paper roleplaying games and called it *Dungeons and Dragons*. The basic setup of the game consists of a group of players sitting around a table and enacting the roles of diverse *player characters* within a virtual *fantasy setting*, designed and described by the *dungeon master*. The dungeon master literally describes this virtual world to the other players in such a way that the players can imagine themselves to be there in their own imagination. The dungeon master tells the players what they encounter within this world, and the players describe their actions and reactions to the dungeon master, role-playing (play acting) their player characters. The physics and mechanics of this world are documented in complex and extensive rule books sold by the publisher, the adventures (modules) that the players experience within this virtual setting are designed beforehand, either by the dungeon master or by an independent designer. A skilled dungeon master can take the somewhat impersonal, systematic rules on how the world and its inhabitants or processes behave, and through the use of a well

¹⁷ Game designers should try creating better rules or even design the board games themselves.

designed adventure, really bring it to life, providing the other players with an extremely compelling play experience.

Key to this, though, is the earlier prepared adventure, which functions as a perfect example of a level design outside of video games. The dungeon master or independent designer takes on the role of level designer because he or she ends designing the in-game encounters and dramatic occurrences that define the player reactions in the game. Although often maligned as an activity, *Dungeons and Dragons* pioneered a fascinating new way of playing deeply immersive games. This was borne out by the huge number of players who since have bought the games and associated products, the countless other similar games that have since become successful, and the countless tie-in products sold. But ultimately for the purpose of this book, this provides an interesting example of alternative level design.

Lessons from history

What these historic examples show us is that level design is not exclusive to video games, but instead can be found throughout very diverse other types of games. Level design never exists purely on its own terms. But what the above examples have shown is that most game designs also don't exist within a vacuum; instead, they can only work together, in unison. This so far shows us that there is indeed a very close link between game design and level design, but it does not explicitly tell us what level design's main function is.

Unfortunately, due to the very young age of level design as a profession, there is not much recourse to be found in professional literature. Hardly any serious texts exist on the subject, and many of those are relatively old or cover the mechanics of level production more than anything else. Even so, some opinions and views have been expressed in the past that provide unique insights.

Various Views on Level Design

Throughout the limited history of level design as a unique discipline, various people have tried to describe or define the field, often based on nothing but their own hard-won professional experience. These definitions are fascinating in many ways. It is always wise to heed the words of pioneers in any creative genre, as typically these early works were the result of completely original thought processes led by novel problems, and not led by existing conventions or styles. And especially since many of these early designers have demonstrated their skills and abilities by providing high-quality examples of their craft. Let's take a look at a number of notable examples.

Example 1: Jay Wilbur

Level design is where the rubber hits the road.¹⁸

Much of level design is about making sure the player is taught¹⁹ the rules of play. An important part of the act of level design is taking all the diverse game elements, teaching the player the associated rules, and using the means available to put them together into one coherent whole. This is what Jay Wilbur meant by his quotation. The game design at one point has to be put into practice, and to do so, the level designer needs to be able to put all the diverse elements of a game together in such a way that it doesn't fall apart when tested in the real world.

Example 2: Sam Sharami

Level designers, or map designers, are the individuals responsible for constructing the game spaces in which the player competes. As such, the level designer is largely responsible for the implementation of the game play in a title.²⁰

This is an interesting view of level design insofar as it talks about its goals and the level designer's responsibility. It touches upon the important fact that level design is responsible for gameplay implementation.

Example: John Romero

A level designer has a very responsible position, because maps are where the game takes place.²¹

Again, this is an interesting observation because it makes a comment on what maps (levels) are. If they are "where the game takes place," it follows that levels allow the game to exist, or at least to be played. An obvious point perhaps, but it tells us something about the strong link between game and game levels.

¹⁸ Jay Wilbur in conversation with Cliff Bleszinski, as reported in *Game Design: Secrets of the Sages*, MacMillan, New York, 1999, Ch. 6. Wilbur is a very famous designer who worked on titles like *Doom* and *Quake*, or more recently, *Gears of War*.

¹⁹ See also Chapter 2, which discusses level design as a "teaching mechanic."

²⁰ Sam Shahrani, "Educational Feature: A History and Analysis of Level Design in 3D Computer Games—Pt. 1," *Gamasutra - Features*, http://www.gamasutra.com/view/feature/2674/educational_feature_a_history_and_.php, 1999.

²¹ John Romero, notorious level designer, programmer, and game designer, who has been involved in many famous and even controversial games. In John Romero, "ION Storm," Chapter 6 of *Game Design: Secrets of the Sages*, Macmillan, New York, 1999; also available at *Gamasutra - Features*, http://www.gamasutra.com/features/19990723/levdesign_chapter_05.htm.

Summary of Views

We have heard that level design has to take all the disparate elements in a game and make them gel, that level designers are responsible for the implementation of the game, and that levels are where the game takes place. These observations, combined with what we have learned from historic examples of level design, provide us with something we can draw some initial conclusions from, and give us some guidance into what to examine next.

Level Design Function Summary

There seems to be no shortage of opinion and ideas on the topic of level design. It is disturbing, therefore, to note that, just as with game design, there is no clear underlying *theme* to these observations or definitions. This chapter has touched on a large number of diverse subjects, and throughout, we have reached a number of general conclusions. Many of these conclusions aren't individually that revelatory, but if taken together and placed in a shared context, they *do* provide useful results. Let's summarize and see where that takes us.

Codependency

It should be clear by now that level design and game design are not the same thing. It has also become clear that they are codependent and interrelated: one is useless without the other. Most games are unfulfilled without some kind of level design, while level design is an interpretation of a game's rules. Because of this codependency, it is very important to realize that we shouldn't study one without studying the other. To understand level design we have to understand game design. How can we interpret a game design without knowledge of it? And conversely, how can we define rules for an experience we do not understand?

Game and Level Design *Function*

This book is about level design, but if we take into account the findings of this chapter, this means that, at least to some degree, it is also about game design. If a game designer designs the gameplay *rules*, the level designer designs *how* the player is confronted with those rules. Looking at it from that angle, a level designer and a game designer have completely different jobs. A game designer *formulates* the game's rules, while a level designer *interprets* them for maximum results. To some degree, one represents theory while the other represents practice. This is the basic *function* of level design.

Play and Application of Game Rules

Just as a theatrical play needs a performance to be complete, a video game's rules need *gameplay* to occur. This is a basic *purpose* of level design, to interpret the game rules, and to translate them into a construct (a level) that best facilitates play. Another way of expressing this is by stating that "level design is applied game design." Not the most impressive definition of level design out there, but it is suitable for the needs of this book. It describes much of the function and purpose of level design, and therefore, much of the work of a level designer.

So, for the purpose of this book, level design will be defined as applied game design, not as a separate function subordinate in a game design hierarchy,²² but as a description of its main function and purpose. This does not mean that I will focus overly on game design issues in this book to the exclusion of level design issues; far from it. Rather, it means that in order to understand certain level design issues, we have to understand certain game design issues. They are different sides of the same coin.

Area of Responsibility

These observations on level design's function or matters of definition are not unimportant or abstract. If we ourselves don't understand the nature of our work it will be impossible to confidently defend it. This isn't always achieved by the content we create, although that is obviously of the utmost importance. We need to be able to explain to others (as much as to explain to ourselves) why we made those choices in the first place. As often as not, we need to be able to make clear and defensible choices from the get-go; to do this; we need to know within what *area of responsibility* we work. It is helpful to be able to work from within a clear framework and to be able to say what the *function* of our work is and what areas it covers. This furthermore allows us to create clearly defined goals for ourselves, a theme that will be further explored in the imaginatively named Chapter 3, "Level Design Goals and Hierarchies."

²² Is a written play superior to its theatrical performance?