

# Game Prototyping

## Lesson 1 Supplemental Reading: About Game Prototyping

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### Game prototypes

Game prototypes are not just slide shows and talking points, or even animated movies. Providing a taste of the art and atmosphere in a game is not enough. Neither is a non-interactive taste of actual gameplay.

Game prototypes have to be *playable*, even if they are far from a finished game themselves. A demonstration level or two of actual gameplay, or even some isolated action demonstrating core gameplay activities, is **required** for a game prototype.

It is this aspect of full playability that is the *raison d'être* (the “reason for being”) of a game prototype: it exists as an early navigation tool to deal with interactivity and gameplay issues.

Let’s examine some of the practical reasons to prototype a game:

### Game prototypes are a sales and communication tool

- 1. To help you find a publisher.** One obvious goal for a game development house or designer with a concept is to make the prototype, on top of the game design documents, in order to convince a publisher to finance the project. This is particularly useful if the prototype also demonstrates the quality or originality of the gameplay.
- 2. To convey the game’s vision.** There are two goals here: A) to convey internally the quality of the game design concepts to the development team’s leads and managers (in particular, the project manager or producer) and get the game design going. Also B) to convey the vision to the rest of the development team (programmers, artists, level/mission designers, QA, and even upper management) to stimulate their thoughts about the game; this provides broader internal feedback during the early stages of development and gets everyone moving in the same direction.

### Game prototypes are a game design tool

- 1. They validate gameplay ideas.** Before adding ideas to a game and spending a fortune on art and code, prototyping is used to test, refine, and validate ideas. Not every idea that looks good (or bad) ‘on paper’ turns out to be so when play tested in a prototype. Some interesting theoretical ideas turn out to be boring, add nothing to the game, or prove to be just too complicated when seen under the light of prototype testing. Conversely, some ideas that seem silly or weird, when play tested, turn out to be gems when experienced through actual gameplay. Either way, prototyping allows you to evolve any good ideas for your game to get them ‘just right’ and maximize their benefits to the game.

- 2. They allow the exploration of ‘novel’ gameplay ideas.** Developing a radical new gameplay concept is an inherently difficult and risky endeavor; particularly one that pushes the frontiers of game design to the limits (and beyond) of a game milieu. Attempting this sort of feat demonstrates the value and necessity of game prototyping as a design tool. It is the laboratory for such game design experiments, so that they can be brought to satisfying maturity or abandoned.

### **Game prototypes are the right Pre-Production tool**

- 1. To solve technical issues.** It is the goal of Pre-Production to ‘remove unknowns’ and foresee all of the technical and architectural difficulties ahead. Doing so allows potential future Production problems to be ‘pre-solved’ during Pre-Production and hence ensure smooth development. Game prototyping serves to experiment with technical issues in things like animation engines, AI, or any other programming risk that needs to be validated before Production begins. This kind of prototyping is also known as a “Proof of Technology” prototype.
- 2. To determine the scope of Production.** Pre-Production is when the Production schedule is built and the team is sized and fitted to the project’s needs. Getting the scope of the project and team size right is crucial, so game prototyping is used as a key test to make sure that all of the games media (images, 3D modeling, animations, sound effects, and music) will integrate properly with the game code. *Nothing is worse than finding out that all of these assets have to be re-done!*

Each of these various reasons for prototyping a game also provide a clue as to when they should be created. Early on, the game prototype is there to **attract the light side** by conveying the vision, attracting buy-in (even investment) in the game, and refining gameplay. Later on, the prototype is used to **avoid the dark side** by allowing safe, cheap experimentation in game design, pre-solving project-killing technical road blocks, and establishing the right size and scope of the project.

Depending on the prototypes primary purposes, one must consider its core gameplay functionalities. A large, multi-faceted prototype can become unwieldy, so these are best implemented by categorizing rules and features into ‘Must Have,’ ‘Should Have,’ and ‘Would Like to Have.’ Doing so allows prototype development to prioritize their work into phases where the ‘Must Have’ items are iterated and integrated first and thus core functionality can be quickly evolved. The other priorities are tested and integrated later in descending order. In this manner, key development questions can be quickly answered.

Prototyping is an important first step in a rational game development process. This ‘screen test’ of a game is a key to economic success in the game industry as well. Using prototypes, one can design and develop the ‘fun factor’ of core gameplay concepts, gain support for the game, and use it to solve risks and plan Production. These warrants show that the development team is capable of handling the project and build the required confidence in *all* of the stakeholders to see the project through.