Game Design & Dev - Planning - Playtesting

A brief intro to using playtesting for initial game design and development.

Contents

Intro

The general underlying concept of *playtesting* is pretty straightforward. Playtesters are chosen to play your game, and then answers questions, describe their experience with the game, and generally provide feedback about the game itself. In effect, we monitor testers playing the game to see what does and does not work, what they like, dislike, and so on.

One of the great benefits of playtesting, beyond feedback itself, is that it reminds us to see the game through the eyes of a player. We're able to observe any particular concepts, objects, or patterns that a tester may focus upon.

For example, where do they focus within the game screen, which components do they touch, how do they navigate a particular task or challenge within the game, and, of course, where do they get stuck or delayed.

We observe, record, and note anything of interest. This forms our record of the playtest session, and each playtester.

Designers and playtesting

Whilst this may sound tedious in some respects, from a designer's perspective we may also gamify this regular task to some extent. The playtesters can become the guides to a particular task, challenge, and level within our game. They will highlight and demonstrate strengths and weaknesses within designs, mechanics, and gameplay.

However, some designers and developers may still choose to only involve playtesters at the end of a game's production or even not at all. The perception of such groups may be clouded or influenced by a tight schedule, lack of funds and resources, or a sense of anxiety with feedback itself. Perhaps the playtesters will dislike or hate the game, or the developers may be pressured or forced in to modifying or removing certain cherished aspects of their game.

However, such a mindset is inherently counterproductive for the design and development of games.

The nature of games inherently discourages such individual, one way communication of concepts, thoughts, and ideas.

Playtesting scenarios & sessions

As we conceive and organise a playtesting session, we are effectively inviting players to simply come and play our games. Regardless of a game's current state, we're listening to what they say about their gaming experience. This becomes an invaluable opportunity to gauge relative successes and failures in the game itself.

We can use this session both directly and indirectly. We may gauge player reactions as they interact with our game, carefully discern if silence is indicative of focus, boredom, or perhaps a combination of both. With practice, we learn to associate types of feedback with the game itself, and use such patterns to help grow and develop our games.

This feedback is a crucial aspect of the iterative design and development process for our games. Each game will transform and grow as a result.

This style of testing is also reflective of a flexible approach and consideration of guidelines, design rules, and patterns. Designing a game needs to be a fluid process, which will evolve and grow over the many cycles of a game's development.

A detailed, sophisticated game can't be conceived from scratch, and then developed to successful completion and release, without going through this process.

Video - Sony's Usability Testing

Here is a brief overview of Sony Entertainment's testing studio.

- Touring SOE's Usability Lab

Player experience goals and aims

As we introduce playtesting and players, we need to consider goals for a player's experience with our game.

player experience goals

These are commonly known as **player experience goals**, and, as you might expect, these are goals that we may define for a player whilst testing and playing our game.

However, these are not defined features of the game (specific gameplay, mechanics &c.). Instead, we may consider them descriptions of interesting, useful, unique situations or scenarios, which a player may discover.

For example, a player may progress through a particular level. We may describe the expected emotions of this level as

> > "a player should begin rapidly, and encounter a sense of frustration as they tackle sets of problems. As they progress from problem to problem, this frustration is replaced with a sense of achievement. Ultimately, satisfaction results as they complete the level."

Another common example is a description of structure for a particular gaming experience, e.g.

> > "a player should be free to wander and experience the game at their own pace, and in their chosen order..."

Particularly useful for broader RPGs, for example.

player perspective

In effect, we're trying to describe our game from the perspective of a player, and not as a designer and developer. For example, what should a player expect from aspects of the game, and the game overall.

Such goals also prove very useful as a way of describing aspects of a game as we plan its initial design and layout. It helps prevent an initial focus on the minutiae of a game's development, and instead plan the game as a player.

We may also use such goals later in each playtesting scenario to help correlate expected game design with the reality expressed by our playtesters.

Initial prototypes and playtests

As we begin designing our initial game concepts, we need to begin prototyping and testing.

We don't necessarily mean a digital, interactive prototype. Simply a playable version of the initial game idea. So, the first thing we can do is create a physical prototype of our game's core concepts, playable mechanics, and structure.

A physical prototype is a great way to perceive, test, and demonstrate these core concepts before we begin the job of painstakingly developing our game. We can use different mediums, including pen, paper, cards, cardboard, or even, perhaps, act out the game itself or important scenes and components.

With this technique, we are simply trying to ensure we perfect, as far as possible, our initial, simple model before artists, developers or producers are allowed to start work.

It may sound slightly bizarre, but we're using this stage of prototyping to ensure that the game's designer receives feedback on the core concepts as soon as possible.

In effect, we're checking that our play testers are able to achieve their player experience goals.

That the game is something worth playing!

Video - Paper Prototyping

- example paper prototype - initial concept 1

Design and development patterns

As noted, we may consider this type of design and development as encouraging a known iterative pattern.

In effect, we're utilising this iteration to complete the following general steps:

- consider general ideas and concepts for your game project
  - discuss, read, watch, listen...anything to help inspire ideas and concepts
  - set player experience goals for the type of game you'd like to create
  - consider concepts and mechanics you want in your game
  - brainstorm initial top 3-5 ideas in your project group
- prototype - stage 1
  - create an initial physical prototype for your top 3 ideas (where applicable)
  - useful to help with selling your game concept (e.g. to funders, other developers, testers...)
  - example artwork, character concepts, story themes and outlines...
  - act out gameplay examples...

- prototype - stage 2
  - start creating initial gameplay digital prototypes
  - interactive examples to test core gameplay
  - several prototypes will usually be created
    - each testing different concepts and examples for your game
  - try to keep this quick, and easy to modify and update
    - do not get too preoccupied with the overall fidelity...
  - playtest these digital prototypes

This is the pattern we often follow to help give shape and structure to our development, which also helps to avoid getting lost down a digital rabbit hole of game development.

BTW, it doesn't matter if you can't draw or design. Rough sketches and outlines are as useful for conveying ideas and concepts.

Video - Paper Prototyping

- example paper prototype - detailed concept 1

things to consider...

- document design and development requirements
  - use any notes, sketches, lists, &c. created during previous steps
    - these will help suggest structure and ideas for formal documentation
  - compile a full list of requirements, and development goals for your **actual** game
  - try to keep this documentation open to collaborative usage and editing
    - it will need to adapt and update as you develop the game
- build and produce your game
  - check each team member knows exactly what they need to do...
  - consider desired milestones for your game's development
    - check game design and development at each milestone
    - evaluate current state of game as a group
  - start developing the final game...
- test, test, and test again
  - after you reach a given milestone, quality assurance is now possible
  - should highlight working, well considered gameplay...
  - it will not resolve all issues
  - playtesting may continue to ensure quality and accessibility for players

As you start to iterate through production and testing steps, you should find that errors, updates, and general modifications get smaller (hopefully) with each iteration. This will often be a result of a carefully considered, planned, and prototyped game concept in the earlier steps of this iterative process.

Video - Paper Prototyping

- example paper prototype - detailed concept 2

Benefits and usage

You might be thinking that this seems a lot of work and preparation before you even reach the digital design and development phase.

In some respects, you'd be correct. However, you might be glad to hear that the gaming industry provides some examples and guidance for customising iterative patterns. As with most guidelines, recommendations, and systems, you can and should modify them to fit your game's specific requirements. As you gain greater experience of game design and development, this initial planning and testing may be streamlined at certain stages.

If we consider physical prototypes, for a moment, we can see that their relevance and application may, in fact, be less useful for well established, tested mechanics and gameplay. Industry game projects will often skip this step as part of their iterative design and development process.

This is simply because many companies produce games with variations on standard, well tested game mechanics. The designers and developers have a good idea how the game will work, and feel comfortable skipping ahead, so to speak. A lot of this is also due to industry pressures in general, including costs, timescales, resources, and player perceptions.

Industry example - part 1

However, such initial steps, including physical prototypes, become crucial if we are designing innovative mechanics and gameplay. If there are new examples and concepts, then it becomes crucial to plan and test thoroughly. In areas where we may lack experience, such testing and planning will be key to designing and developing a successful, playable game.

Electronic Arts is a company that has increasingly adopted such a design and development process for certain applicable games. They introduced internal training for pre-production methods in the mid-2000s, including workshops on physical prototyping and playtesting. Each of these have featured as part of their initial development.

Jeremy Townsend, who has worked at EAs Tiburon studio (best known for the Madden and Tiger Woods series of games), has used such **rapid prototyping** and pre-production methods to help inform game development. He notes, for example

> > "Stay away from 3D prototyping if at all possible. Most game problems can be solved in 2D, even on paper," he said. "The Play's the thing - think of 3D prototyping as a big gun, you only want to use it as a last resort."

develop - EA at Grand Rapids

Industry example - part 2

Whilst EA has also used Microsoft's XNA development tools for the XBox 360 console and Windows PCs, to help develop ideas quickly and efficiently, rapid prototyping still plays a key role,

As Townsend notes,

> > "if something doesn't work you can correct away from it"

develop - EA at Grand Rapids

Spore, for example, was released by EA in 2008. It's an example of a **god** game, which became well known for its *procedural generation* and resulting *open ended* style of gameplay. This game used this type of pre-production testing and development. This included the creation of many different prototypes. For example,

- Spore - Prototypes

Image - EA *Spore*

industry example - part 3

Global Game Jam

Each year, many game designers and developers from around the world come together for a game jam known as the **Global Game Jam**.

This year it was held from 20th to 22nd January in Hawaii, USA. However, there were more than 36,000 participants in 702 sites around the world. Over this game jam weekend, more than 7,000 games were created, which set a new record for this event.

This year's theme focused on the deceptively simple concept of **waves**, which could then be modified using additional, optional **diversifiers**. These included options such as,

- **Spaced**
  - played using only the spacebar - no mouse, no other inputs. - testing Accessibility, Design
- **Old Masters**
  - the art style of your game is based off of a master artist's style (i.e. Picasso, Klimt, Van Gogh). - testing Art
- **Chipping In**
  - the game uses only 8 bit style audio, only 8 bit style visuals, or both. - testing Audio, Art

There are many, many example games available, if you still can't decide what to design and develop,

- game examples

References

- develop. *EA at Grand Rapids*. http://www.develop-online.net/tools-and-tech/grand-rapids/0116020. 2007.
- Electronic Arts. Spore Prototypes. http://www.spore.com/comm/prototypes. 2008.
- Global Game Jam
- Wikipedia
  - Spore - 2008

Videos

- Paper Prototyping
  - initial concept 1
  - detailed concept 1
  - detailed concept 2