Project Management for Game Development

Organized chaos.
But first... who am I?
My name is Rebekah Gamin Arcovitch

- You can call me Becky
- I teach game development at RPI
  - 3D modeling and texturing
  - Lighting, rendering, and cinematography
  - Game Dev 1 and 2 (group projects!)
- My focus in games is two things
  - Good cinematography
    - And how cinematography informs player choice
  - Good production practices
    - Developing plans to allow for creativity while not burning out
Becky G Arcovitch

✗ Previously, I worked at **Telltale Games** for 8 years
  ✗ Started on Back to the Future
  ✗ Cinematic artist on Walking Dead, Wolf Among Us
  ✗ Episode Director on Walking Dead, Minecraft Story Mode
  ✗ Studio Manager of Cinematics when I departed
I left Telltale April 2018. It shut down in September of 2018 with no notice and no severance.

It was awful, my friends lost their jobs. It was so sad.

It solidified to me the importance of planning and viewing each other as human beings inside of game development.
But wait, you weren’t a producer there?

I worked directly as a liaison to production.

I created “chore complexity” as a way to estimate cinematic work time.

Example: Tales from the Borderlands ep 5
Project Management

Just in general.
What is Project Management exactly?

✘ It’s making a plan to hit goals at a certain time
✘ It involves assigning tasks to individual members of a team.
✘ It requires a decent understanding of what goes into executing on those tasks.
Why project manage a game? It’s CREATIVE!

✗ So you know what you’re designing can actually be built
✗ Otherwise it is very discouraging
✗ So you don’t forget something important
Most important aspects of project management for video games:

1. Listening
   a. To your teammates
   b. To your instincts about what you can and cannot do in the time you have

2. Creating backup plans for when things don’t go perfectly
   a. Because they never go perfectly.
Game Development is not linear or cut and dry

It should be iterative, creative, and in phases
Project Management methodologies:

✘ Agile
   ✘ Iterative and incremental.
   ✘ I use a modified version of this.

✘ Scrum
   ✘ Similar to agile but more role based than milestone based
   ✘ Typified by regular check in meetings with the whole team

✘ Kanban
   ✘ Visualization using cards of “to do” “in progress” and “done”

✘ Waterfall
   ✘ Linear, sequential (less good for video games)
Gantt charts

- A bar chart that illustrates a project schedule
- Each bar represents a task to be performed
- Listed vertically
- Arranged over time and overlapping
- Time listed horizontally

<table>
<thead>
<tr>
<th>Number</th>
<th>Task</th>
<th>Duration (Weeks)</th>
<th>Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Brainstorming</td>
<td>2</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2</td>
<td>Concept Art and Research</td>
<td>4</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>3</td>
<td>2D Element Design</td>
<td>12</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>4</td>
<td>3D Modelling</td>
<td>18</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>5</td>
<td>Map Design</td>
<td>6</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>6</td>
<td>Flash Menu Integration</td>
<td>6</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>7</td>
<td>UV Mapping and Texture Design</td>
<td>18</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>9</td>
<td>Motion Graphics and Video Integration</td>
<td>6</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>10</td>
<td>Narrative Story Writing</td>
<td>3</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>11</td>
<td>Sound Production</td>
<td>6</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>12</td>
<td>Sound Recording</td>
<td>1</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>13</td>
<td>Kismet Developing</td>
<td>15</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>14</td>
<td>Unreal Editor Integration</td>
<td>3</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>15</td>
<td>Play Testing</td>
<td>5</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>
## Important terms in Project Management

<table>
<thead>
<tr>
<th><strong>Milestones</strong></th>
<th><strong>Tasks</strong></th>
<th><strong>Scope</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>✗ Phases of game completion</td>
<td>✗ Specific small goals on the way to a milestone</td>
<td>✗ The size of the project</td>
</tr>
<tr>
<td>✗ Examples:</td>
<td></td>
<td>✗ How many levels?</td>
</tr>
<tr>
<td>✗ First Playable</td>
<td>✗ Character model</td>
<td>✗ How many characters?</td>
</tr>
<tr>
<td>✗ Vertical Slice</td>
<td>✗ Mechanic programming</td>
<td>✗ How many mechanics?</td>
</tr>
<tr>
<td>✗ Content Complete</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Other important terms for project management

✘ Sprint
   ✗ The time between two milestones

✘ Backlog
   ✗ All the things you need to do for the project

✘ Constraints
   ✗ Factors you cannot change

✘ Contingency plan
   ✗ What happens when things don’t go perfectly

✘ Postmortem
   ✗ A meeting to have after a milestone to determine what went well and what you would change
Milestones broken down:

First Playable
- Aka prototype
- Demonstrates core design
- No more blank page
- Art is utility not final

Vertical Slice:
- A very small portion of the game
- Art is complete
- Indicates final scale possible of game

Content Complete:
- All levels completed and functional
- Bugs exist
- Art is complete but not polished

Content Lock:
- After this, only small bug fixes
- No major changes after this point
“Every project and company has a different definition for content complete, mine is: every piece of art, animation, sound, music and puzzle is in the game. If not for bugs, you could ship the game.”

– Ron Gilbert
Tools for project management

- Trello
  - a kanban board
- Asana
- Wunderlist
- Microsoft Project
  - Costs money
  - Gantt charts
- Monday
  - Gantt charts
Planning your own game now:
Start big picture

✘ Where can you realistically get by the end of Lift Off?
✘ Lift Off doesn’t have to be the whole game
✘ What do you need to complete each week to get there
✘ Figuring this out will sometimes help you realize that the goal you set for Lift Off needs to be scoped down
Your milestone is not useful if it’s not realistic and specific.

Set modest goals and you’ll never go off track.
Turning milestones into tasks

✘ Now that you have your big picture milestones, break them into tasks
✘ Start with the tasks to arrive at your next milestone
✘ Tasks can get more vague the later on in the dev cycle they are
✘ If you are assigning a task to someone else make sure it’s clear when you need it by
✘ Don’t put a due date when it needs to be in game
✘ Give yourself time for implementation into engine for any asset (art, music, etc)
Sample schedule for Lift Off game:

✖ Week 1 - Design
  ✗ Written, top down sketches, collect inspirational or create concept artwork

✖ Week 2 - Prototype
  ✗ Just main mechanic working, art is placeholder or first pass

✖ Week 3 - Vertical Slice
  ✗ One tiny piece of the game with it’s final art style

✖ Week 4 - Progress
  ✗ Pick a reasonable chunk to get your game halfway done

✖ Week 5 - Content Complete
  ✗ The whole game is there but buggy and unpolished

✖ Week 6 - Content Lock
  ✗ Hands off, ship it.
Would anyone like me to do a quick schedule for their game?

✗ Week 1 (already done)
✓
✗ Week 2
✗ Week 3
✗ Week 4
✗ Week 5
✗ Week 6
✓ Presentation!
questions?
Do you enjoy logistics and find project planning super fun?

- In video games, project planners are often called “Producers”
- Consider applying for an “associate producer” role!
Would you like me to discuss your plan with you?

Feel free to flag me down! I love planning!