Lecture 11:

Level Design
Today

- Administrivia
- Lecture on level design
- Group time and consultations
Design Documents Graded

• Out of 36 points
  • 4 points per section: Vision, Objectives, Challenges, Interactions, Mockup, Feature List, Plan, Playtesting

• Revisions allowed – resubmit it to me
Next Week

- Oct 7th
  - 1st prototype due
    - Submit SWF through CMS
  - In class: playtesting
    - Bring multiple computers

- Oct 9th
  - In class: postmortem presentations

- You need to be in class all of next week
Prototype Grading

• First Prototype: Oct. 7th
  • Out of 5 points
    • 5 – playable
    • 4 – playable but some crucial components don’t work
    • 3 or lower – unplayable; multiple components are missing

• Second Prototype: Oct 21st
  • Out of 100 points
  • Each group gets a customized rubric
  • Rubric will be distributed Oct 8th
  • You can submit a counterproposal by next Friday, Oct. 10th
Change to First Prototype

- Only three levels required
  - Easy
  - Medium
  - Hard
Policy on crashes

• First Prototype
  • It’s okay but will annoy your playtesters

• Second Prototype
  • Acceptable in rare circumstances

• Releases
  • Unacceptable!
Level Design
The Level Designer’s Dilemma

- Greatest game idea ever!
- Now what?

Show off the design!
Three Key Ideas

• Progress through mechanics
• Explore the design space
• Implement design patterns
• Progress through mechanics

• Explore the design space

• Implement design patterns
Portal 2 Mechanics
Reinforcement

How long to “dwell” on a mechanic before introducing a new one?

**Actions:**

\[
\begin{align*}
A &= \text{jump} \\
B &= \text{dash}
\end{align*}
\]

A B vs. A A A A B
Recombination

- How often to combine mechanics with other mechanics?

**Actions:**

\[ \begin{align*}
    &A = \text{jump} & B = \text{dash} & C = \text{shoot fireball} \\
\end{align*} \]

\[ \text{A} \quad \text{B} \quad \text{C} \quad \text{vs.} \quad \text{A} \quad \text{AB} \quad \text{ABC} \]
Recombination

A, A, A, A, B, B, B
A, B, C, D, E
A, AB, ABC, ABCD, ABCDE

Reinforcement

A, B, B, B
A, A, B, AB, AB
A, AB, ABC, ABCD, ABCDE

Level Design
Robot Unicorn Attack
Robot Unicorn Attack Progression

Mechanics:

A = jump      B = dash

A  A  A  A  B  A  A  A  B

High reinforcement, low recombination
Level Design
Hello Worlds

**Mechanics:**

A = move  
B = two worlds  
C = close world

A  AB  AB  ABC  ABC

Moderate reinforcement, high recombination
Starcraft

Level Design
Starcraft

Low reinforcement, high recombination
What’s the best?

- No correct answer
- Some reinforcement but not too much
- Some recombination but not too much
• Progress through mechanics
• Explore the design space
• Implement design patterns
• Progress through mechanics
• Explore the design space
• Implement design patterns
Explore the design space

- How do mechanics interact in interesting ways?
Braid

- World 2: basic mechanics (jump, kill, rewind)
- World 3: unrewindable objects
- World 4: time is connected to motion
- World 5: clone yourself and do two things
- World 6: slow down time
- World 1: time moves backwards
Braid

- **World 2**: basic mechanics (jump, kill, rewind)
- **World 3**: unrewindable objects
- **World 4**: time is connected to motion
- **World 5**: clone yourself and do two things
- **World 6**: slow down time
- **World 1**: time moves backwards
Level Design
Level Design
• Progress through mechanics

• Explore the design space

• Implement design patterns
• Progress through mechanics
• Explore the design space
• Implement design patterns
What is a design pattern?

what everyone else does
First-person Shooter Design Patterns
Arena

Level Design
Stronghold
Sniper spot
Choke Point

Level Design
• Progress through mechanics
• Explore the design space
• Implement design patterns
Rest of class

- Group meeting time

- I will come around to each group