



IMGD 3000 - Technical Game Development I: Gold's Nuggets

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Ideas to Build By

- Start small. Get bigger through small, incremental steps.
 - Iterative design allows you to solve progressively larger problems to complete the project.
- Avoid presenting single solutions to critical tasks.
 - There are many ways to solve problems.
- If something works, keep doing it.
 - Don't change for the sake of changing.
- If something doesn't work, stop doing it, and replace it with something that does.
 - Acknowledge your mistakes. Learn from them, and ask yourself: How can I prevent this in the future?

Ideas to Build By (cont.)

- ❑ Avoid repeating things you do wrong, and void having to redo things you've already done right.
 - Reuse what you can.
 - Better yet, make your design (and write your code) knowing you will use it again on a different problem.
- ❑ No rule, no matter how good, is applicable in every situation.
 - You should use whatever languages/tools/environments/people make the most sense for the given situation.

Phases of Learning

- ❑ Unconscious Incompetence
 - "I didn't even know I couldn't do it."
- ❑ Conscious Incompetence
 - "I'm aware it's not how I'd like it to be."
- ❑ Conscious Competence
 - "If I make the effort, I can get the desired result."
- ❑ Unconscious Competence
 - "I don't even have to try and it works out."

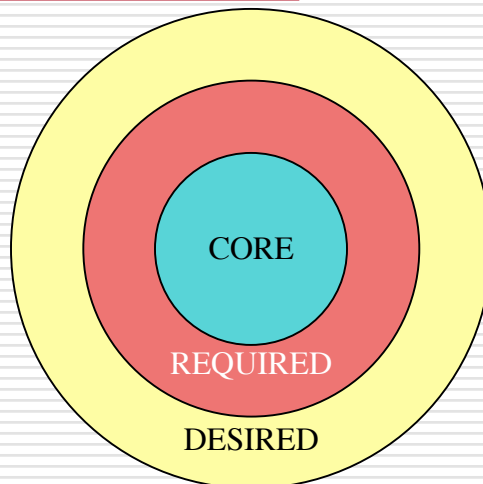
Development Priorities

- What are some priorities for measuring the quality of games?

- Where should you spend most of your time/effort?

- How would you order these?

Reality of Game Dev: Open-Ended Development



Reality of Game Dev: Heuristic Content



- Constantly making "playjustments"
 - Incremental tweaking of game-play elements to make a game more playable, balanced, etc.
- Subjective, so test with players!
- Eye candy versus substance

Reality of Game Dev: Hardware



- Hardware support
 - Lowest common denominator PC?
 - Console?
 - Handheld?
- Control methods
 - Specialty controller
 - Guitar
 - WASD + Mouse?
 - Camera input?
 - EyeToy
 - Motion-sensitive controller?
 - Wii/PS3

Game Software Engineering

- Games are getting more sophisticated
- Development times are not getting longer
- Team sizes are growing only modestly
 - Various companies/groups involved
- Need to be *more efficient* in development
 - Reduce time scales
 - Use team members better
- Problems
 - Egos, inertia, structure, ...

What Makes a Good Game Developer?

- Good programmer?
 - Language specific?
- Designer and planner
 - Bottom-up and top-down analyses
 - Estimator and scheduler
- Team player
 - Liaise with artists
 - Follow a lead developer
 - Support other developers
 - Technical reviews