



GMAM702: Prototyping for Games

2: Introduction to Design

Design Frameworks

Iterative Game Design Process

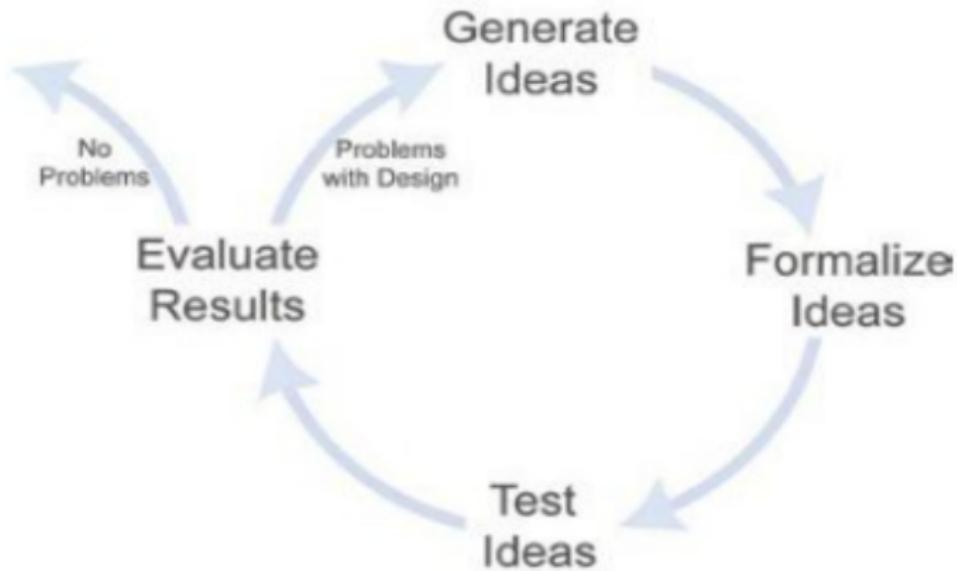
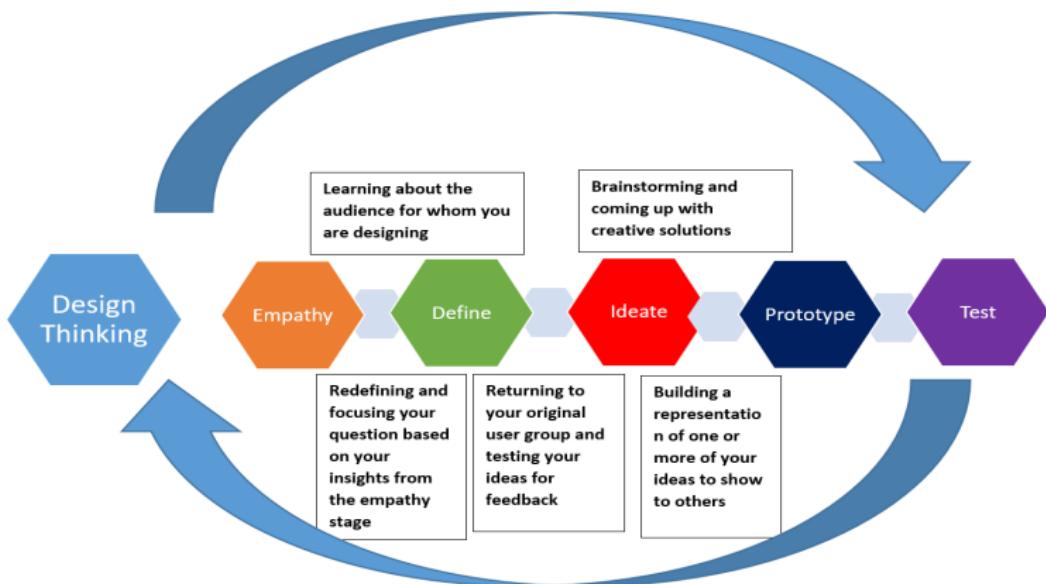
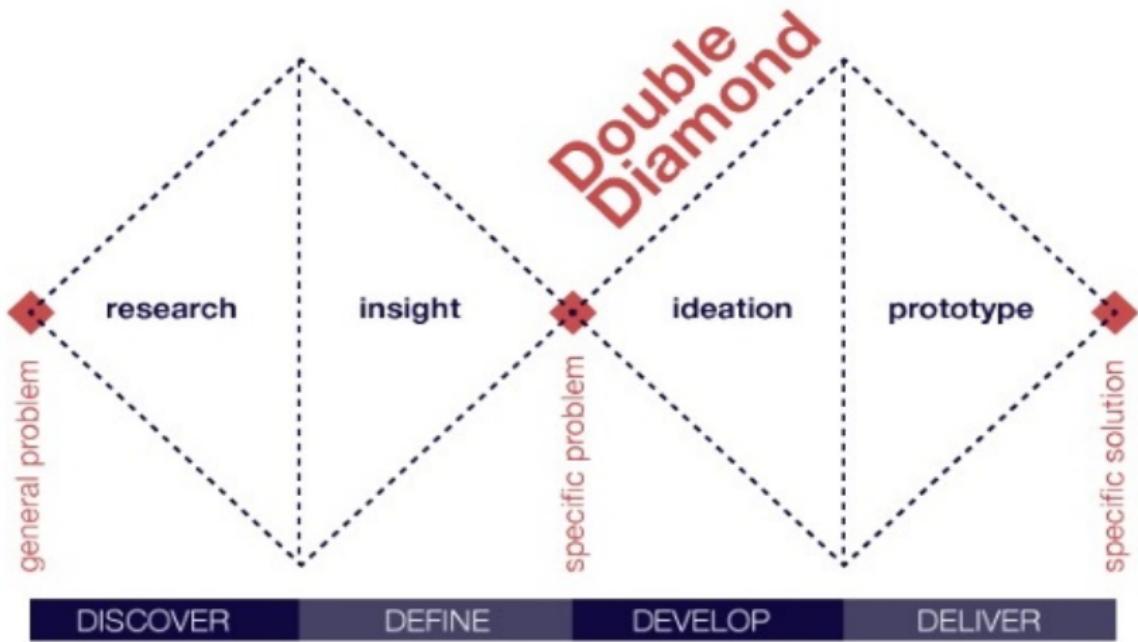


Figure: taken from Game Design Workshop

Design Thinking



Double Diamond



Summary

- ▶ Notice the key similarities in these models
- ▶ Iteration, testing and revising are key
- ▶ We are now going to look at tools to capture high level design choices

Design Goals

Intro

- ▶ As a designer it is important to have sort of intent
- ▶ It is important to think of what kind of response you want from your audience
- ▶ Its also important to document your design decisions

Design Document (GGD)

- ▶ This traditionally documented all the decisions made by the designer in one place
- ▶ The act of writing this forced the designer to think through their process
- ▶ One major issue, is that these docs became monolithic and were not read by the team
- ▶ There is no standard format for Design Docs

Evolution of the Design Doc

- ▶ Design docs would be kept up to date when the design shifted
- ▶ Gradually these docs were moved to Wiki's or Google Docs
- ▶ This allows the GGD to be updated and collaborated on

Suggest GGD Structure

- ▶ Taken from Game Design Workshop Chapter 14 Pg 459 - 464
- ▶ Overview and Vision Statement
- ▶ Audience, platform, and marketing
- ▶ Gameplay
- ▶ Characters (if applicable)
- ▶ Story (if applicable)
- ▶ World (if applicable)
- ▶ Media List

Design Pillars

- ▶ Something about your game that everything should revolve around
- ▶ Establish once the your are in production
- ▶ Better for larger games
- ▶ Traditionally this is focused on mechanics but try to think about emotions you want at the core of your game

Audience/Player Experience Goals

- ▶ Less rigid than Design Pillars
- ▶ You should focus on the emotional journey you want the player to experience
- ▶ This should inform your design process at all times
- ▶ If a feature detracts from this experience then cut it

Game Design Macro

- ▶ Monolithic Design Docs are not very useful
- ▶ No-one in the team reads them
- ▶ Document is slow to evolve
- ▶ Game Design Macro attempts to capture the high level design

Game Design Macro

Design Goals, Macro & Schedule

Audience Experience Goals:

E.g. a game that makes the player laugh out loud

Design Goals:

E.g. a first-person game that uses colour

Design Macro and Schedule:

Asset or Feature Name	Type	Time Estimate	Done!
Total Time (max 100)			

One Page Designs

- ▶ First described by Stone Librande (Riot Games)
- ▶ Instead of writing a monolithic Design Doc
- ▶ You write a series of one page design docs which detail some aspect of the game
- ▶ This could be a map, a visual description of the combat, relationship between characters

One Page Designs

Direct
Shot does not travel along path, but hits target instantaneously.

Parameters:
delay

Melee
A type of direct damage that can only be delivered by the source being within close range of a target.

Parameters:
same as Direct
min-max range
pierce (on/off)

Instant
Near instantaneous delivery that cannot be dodged, but can be blocked by other objects.

Parameters:
min-max range
pierce (on/off)

Propelled
Shoots out an object (actor) that can be dodged or blocked by other objects.

Parameters:
min-max range
distance trigger
time trigger
velocity
pierce (on/off)

Lobbed
A type of propelled delivery that arcs up and passes over objects.

Parameters:
same as Propelled
launch angle

Pathing (Homing)
A type of propelled delivery that follows an arbitrary set of rules (AI) and attempts to reach a target, despite obstacles.

Parameters:
same as Propelled
pathing rules

Area - Circle
Payloads delivered to all targets within area at a set rate.

Parameters:
frequency of payloads
distribution
dissipation
min-max range
min-max height
spherical or cylindrical

Area - Cone
Similar to a circle, but in a specified arc.

Parameters:
same as Circle
min-max arc width

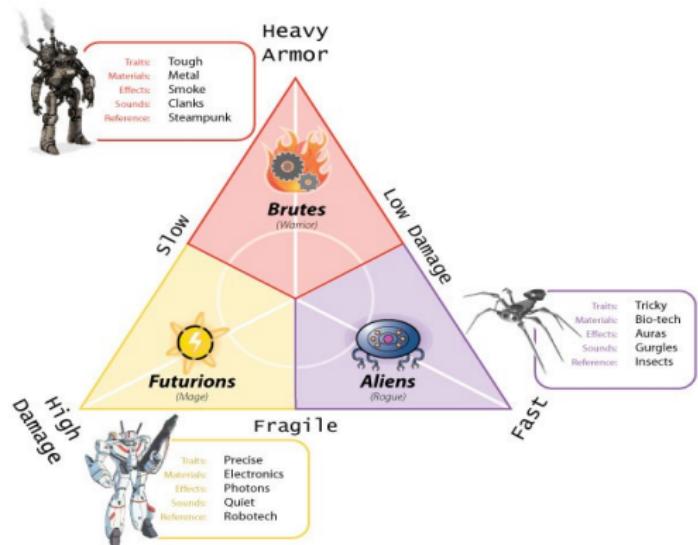
Area - Beam
Similar to a cone, but in a rectangular shape.

Parameters:
frequency of payloads
distribution
dissipation
min-max x,y,z

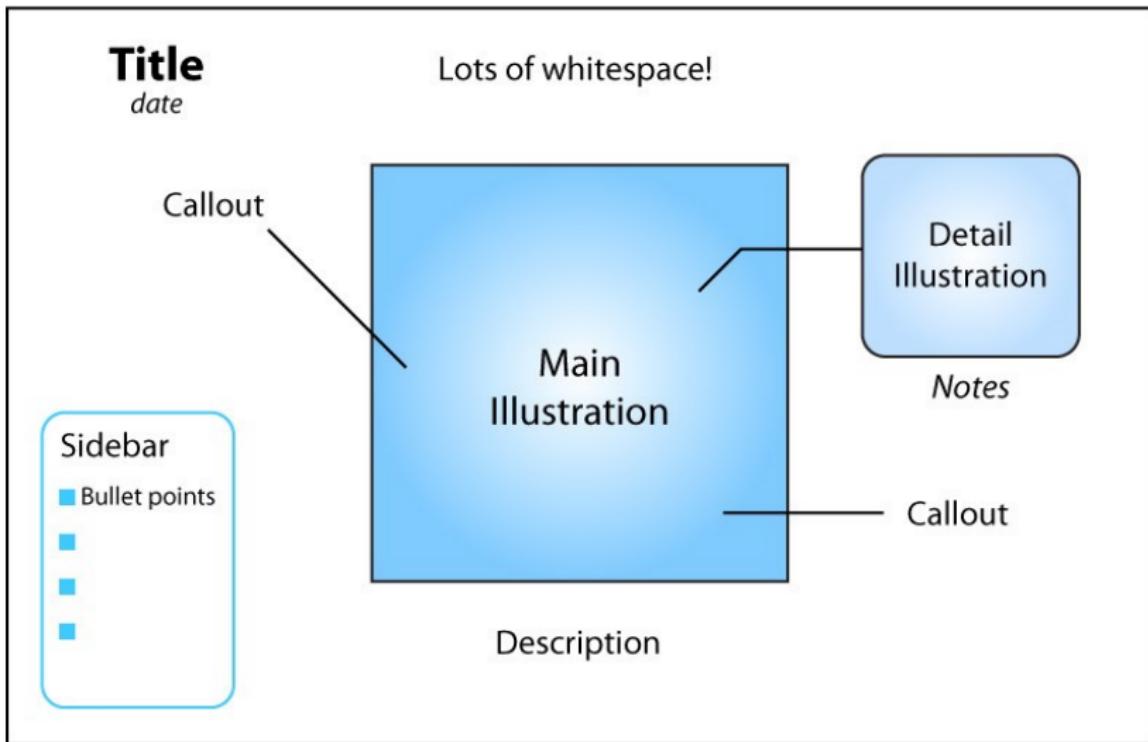
Nova (Wave)
Attack radiates out from central point.
Target takes one hit as wave passes through it.
(Note: novas are typically a full circle, but do not have to be).

Parameters:
min-max range
min-max arc
velocity
2D or 3D
ground hugging (on/off)
dissipation

One Page Designs



One Page Design Template



One Page Design Benefits

- ▶ Forces a complete understanding of the game
- ▶ Forces a concise design
- ▶ Highlights relationships
- ▶ Aids problem solving

References

- ▶ Fullerton, T., 2018. Game design workshop: a playcentric approach to creating innovative games. AK Peters/CRC Press, Chapter 14, pp. 458 - 464
- ▶ Innovation Through Better Design Pillars <https://www.gdcvault.com/browse/gdc-17/play/1024176>
- ▶ One-Page Designs <https://www.gdcvault.com/play/1012356/One-Page>