Implementing Games User Research Processes Throughout Development: **Beyond Playtesting**

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@grmcall

GAME DEVELOPERS CONFERENCE™ CHINA
SHANGHAI INTERNATIONAL CONVENTION CENTER
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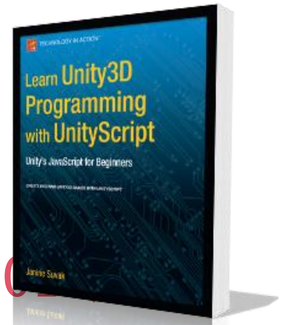
Introduction

- Founder - Player Research, a User Research studio based in Brighton, UK
- PhD in Computer Science
- Academic in Music Technology
- Academic in Human-Computer Interaction
- Columnist for Edge Online
- Secondment to Unity in Feb 2006
- Tech Editor for Learn Unity3D Programming with UnityScript (20



Player Research

Some of our clients…

… and many

100%

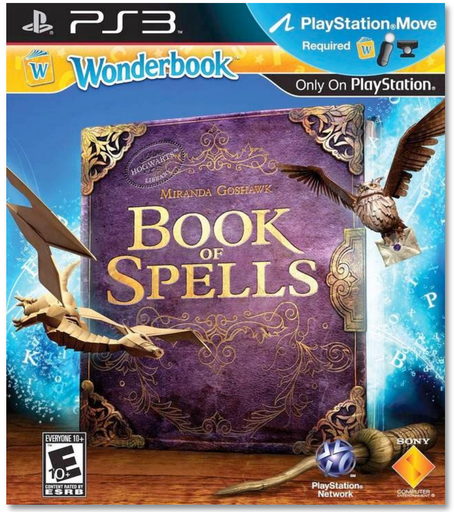
of our

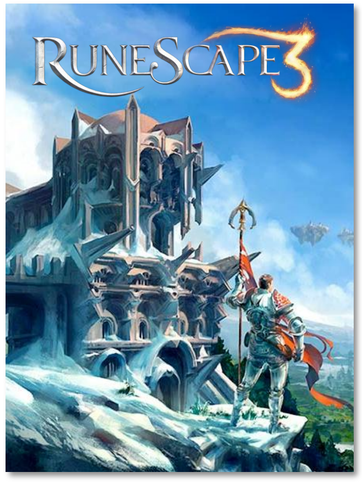
iOS games featured

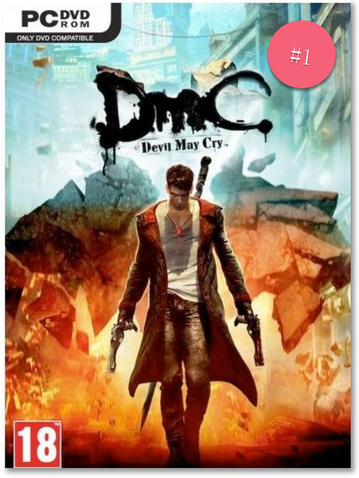
FRONT PAGE

on the Apple App Store

Player Research

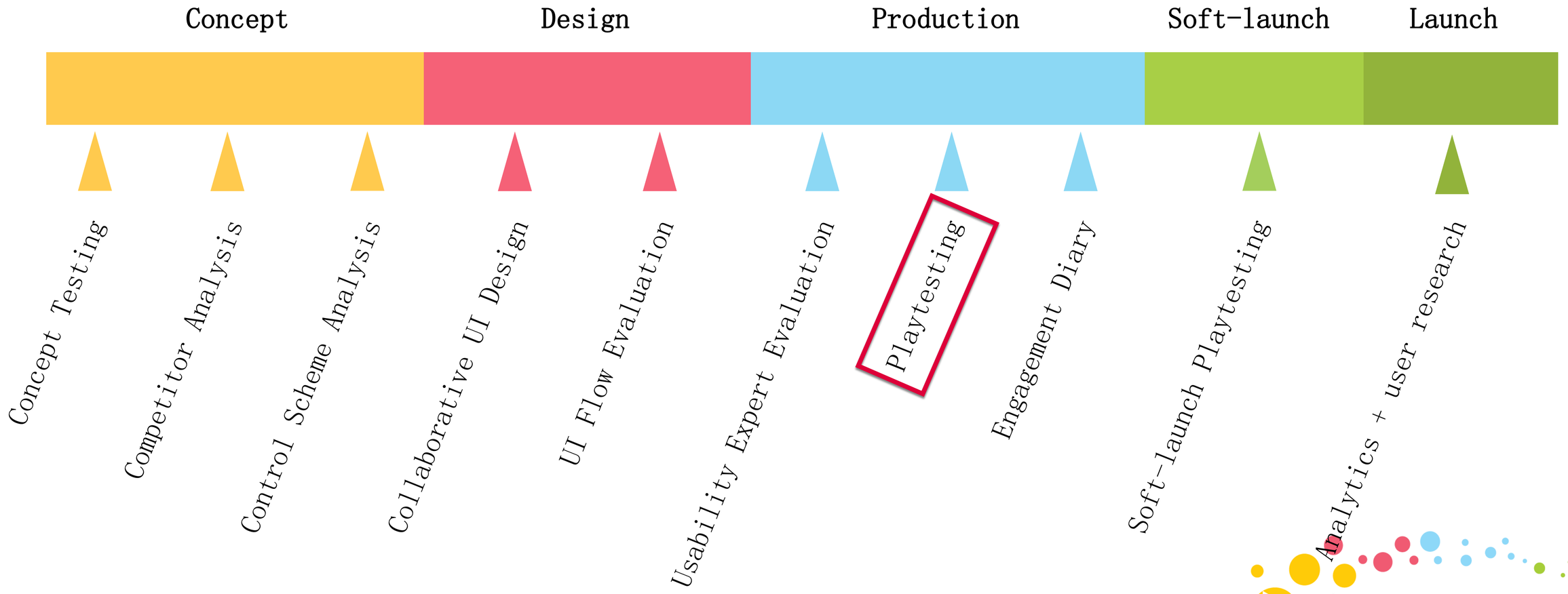






Player Research

User Research is more than just playtesting …



Player Research

Aims of this talk

1. Outline how user research helps improve the player experience of your games

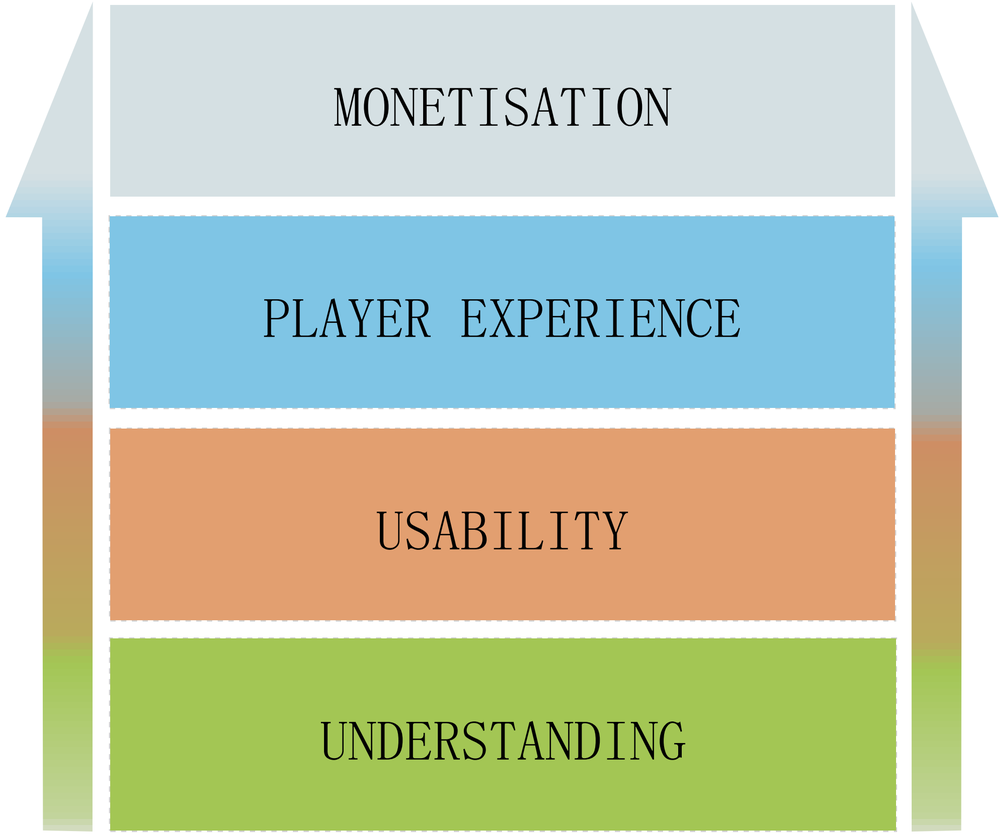
2. Show you 10 approaches on how to achieve better games

3. Package these into a process

Player Research

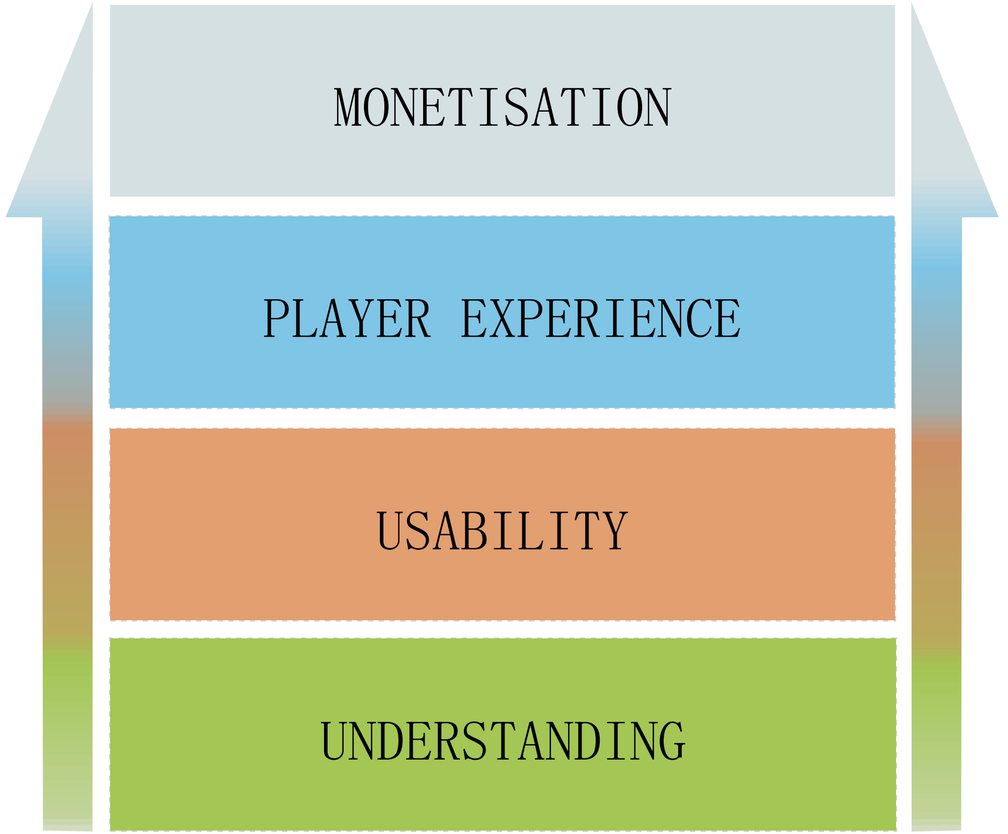
Key gameplay layers

- 4 layers for F2P games
- 3 layers for premium games
- Hierarchical (mostly), lower layers should be addressed first before moving upwards
- Your game needs to do well at ALL layers



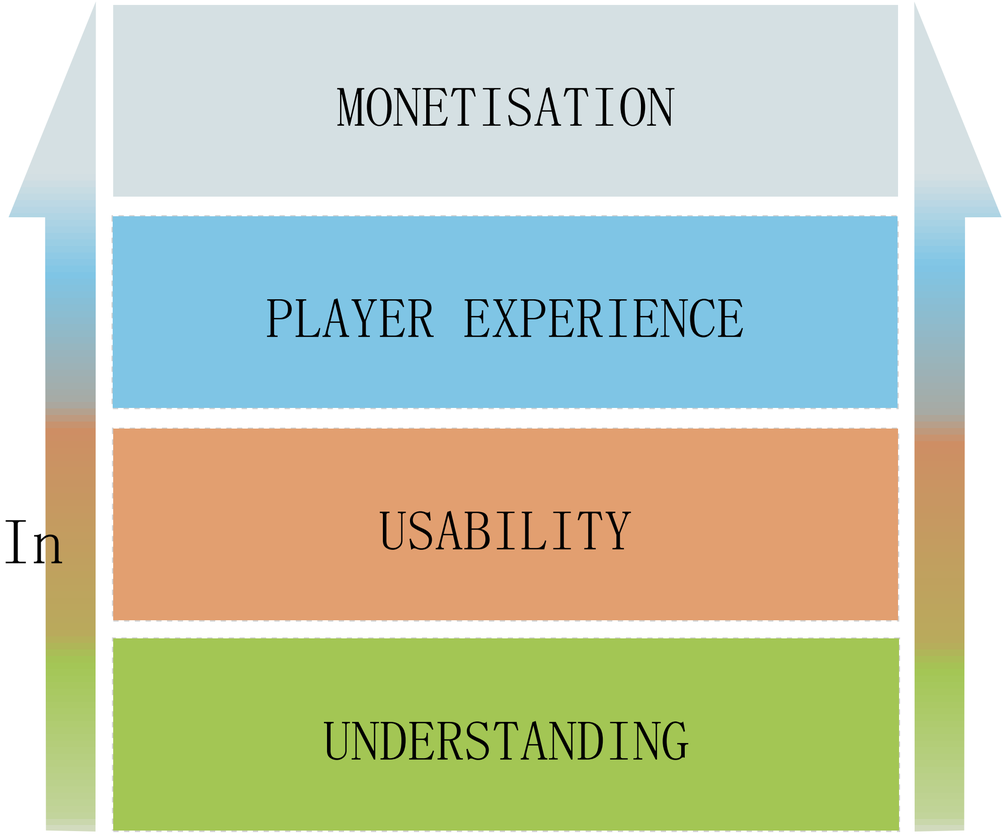
Player Research

- Monetisation (top layer)
- The player is more likely to pay if the player experience is good
- This seems logical, but what does ‘good’ mean?



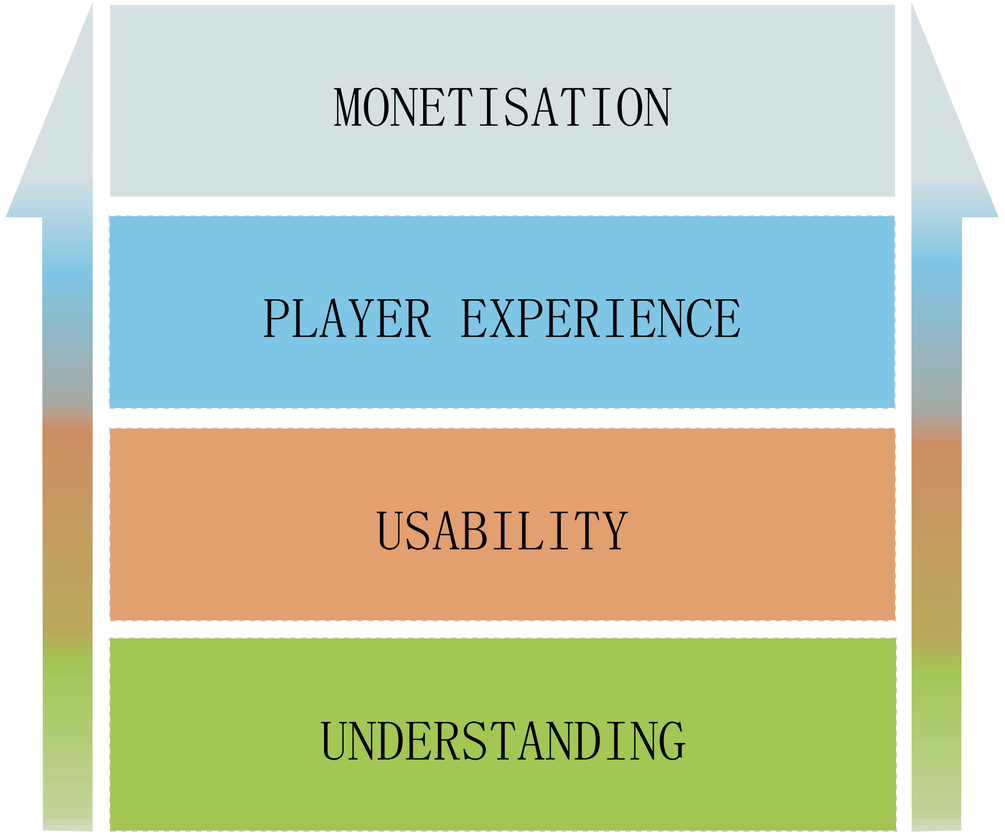
Player Research

- Player Experience
- Does the player play the game in the way in which the designer intended?
- If not, what is stopping them doing so? In our experience, the lower two layers are the likely causes of friction.



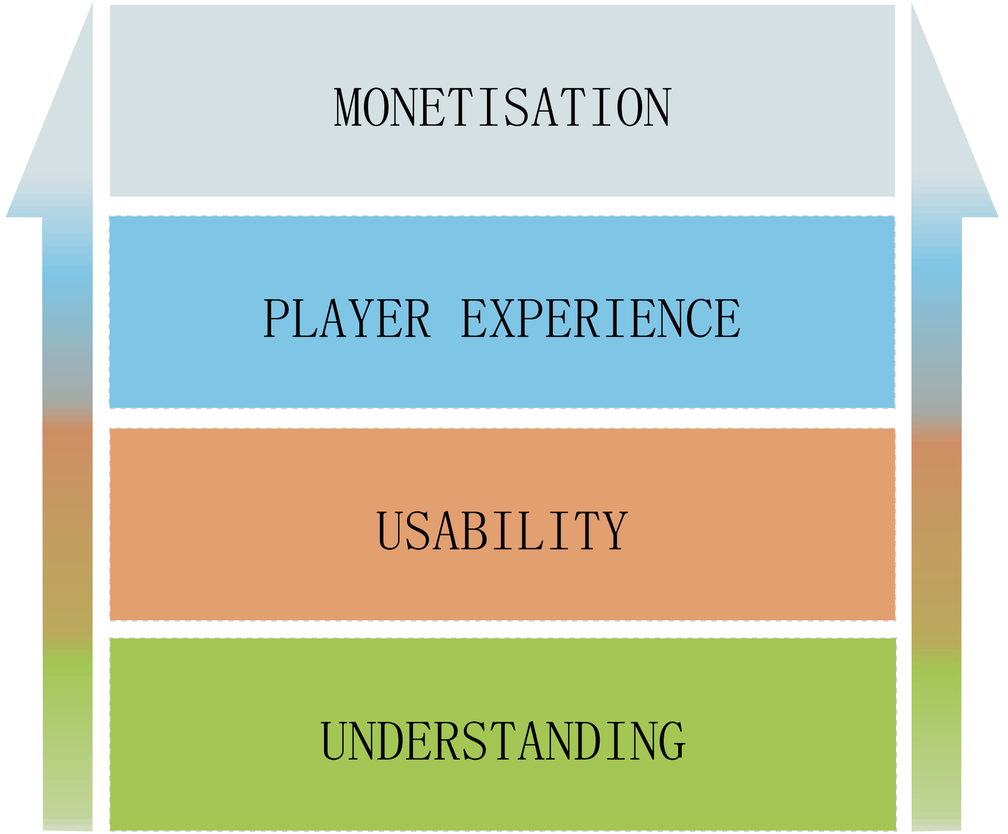
Player Research

- Usability
- Is the player able to do the operations and process the information which is required to successfully play the game?
- This may include controls, feedback, UI etc



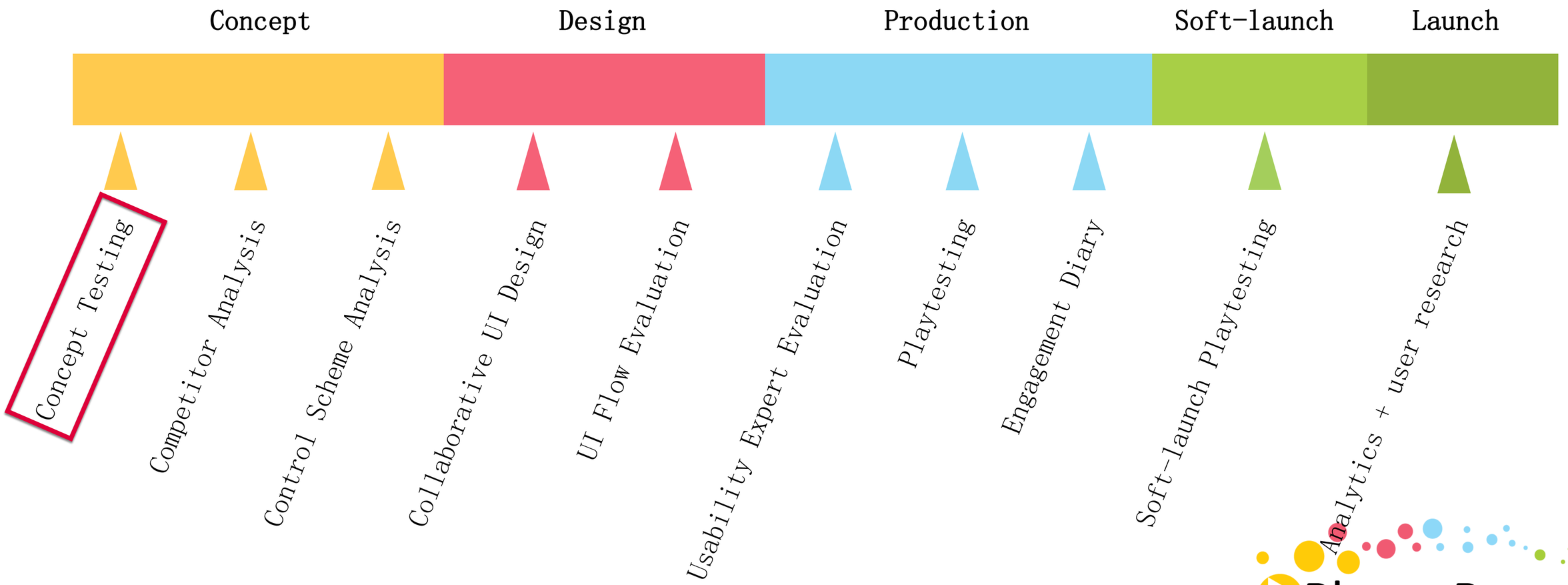
Player Research

- Understanding
- Does the player understand the rules of the game? Do they know what is possible in the game world?
- Most games fail at this (lowest) layer.



Player Research

Concept Testing



Player Research

Purpose

- Get feedback as early as possible elements of your game.

How does this help?

- Perception of game prototype / art style
- Attitude towards genre / IP
- Feedback on potential features
- Understanding of competitors’ titles

Player Research

Not that Candy Crush Saga was perfect from the first iteration. "We had an early theme based around the French Art Deco style," Knutsson explains. That included an over-the-top French voice egging on players when they made good moves. "It didn't work out," Knutsson says. People hated the accent, finding it too jokey. It was replaced with a smooth, deep male voice whispering encouragement.

“

We had an early theme based around the French Art Deco style - it didn't work out ”

Player Research

Pros

- Early feedback
- Confirm target audience

Cons

- Needs to be large (ish) scale 30+, ideally 100+
- Time consuming
- Expensive

Player Research

Concept Testing

Competitor Analysis

Interaction Analysis

Collaborative UI Design

UI Expert Evaluation

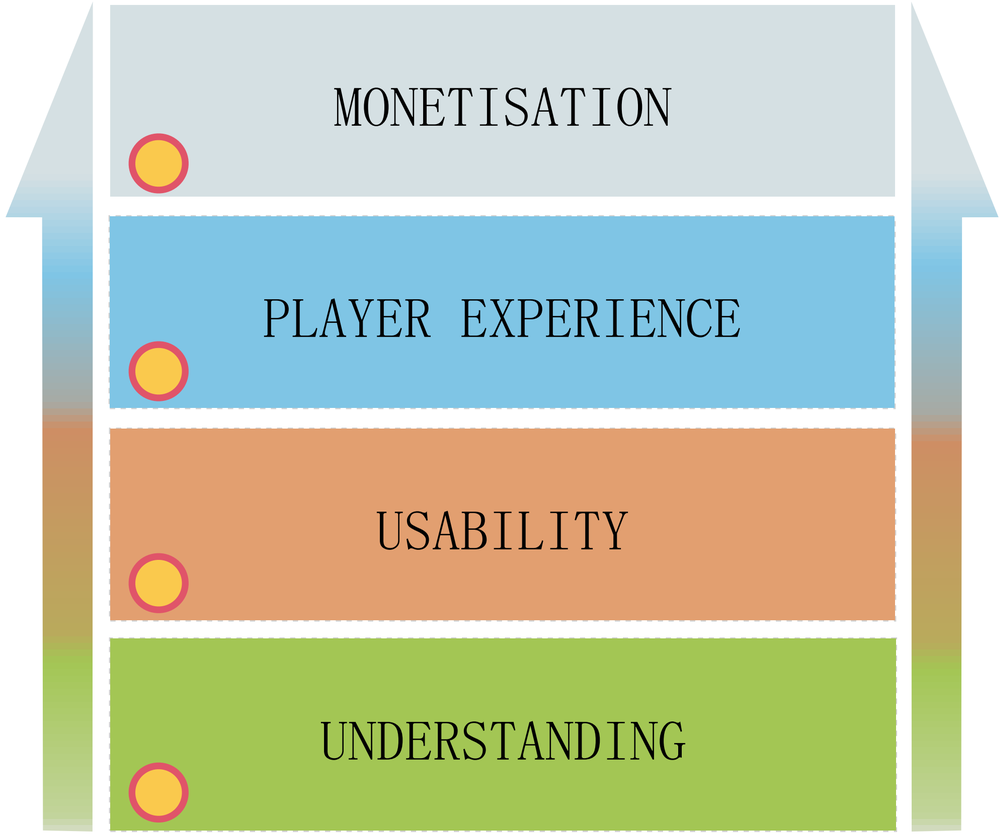
Usability Expert Evaluation

Playtesting

Engagement Diary

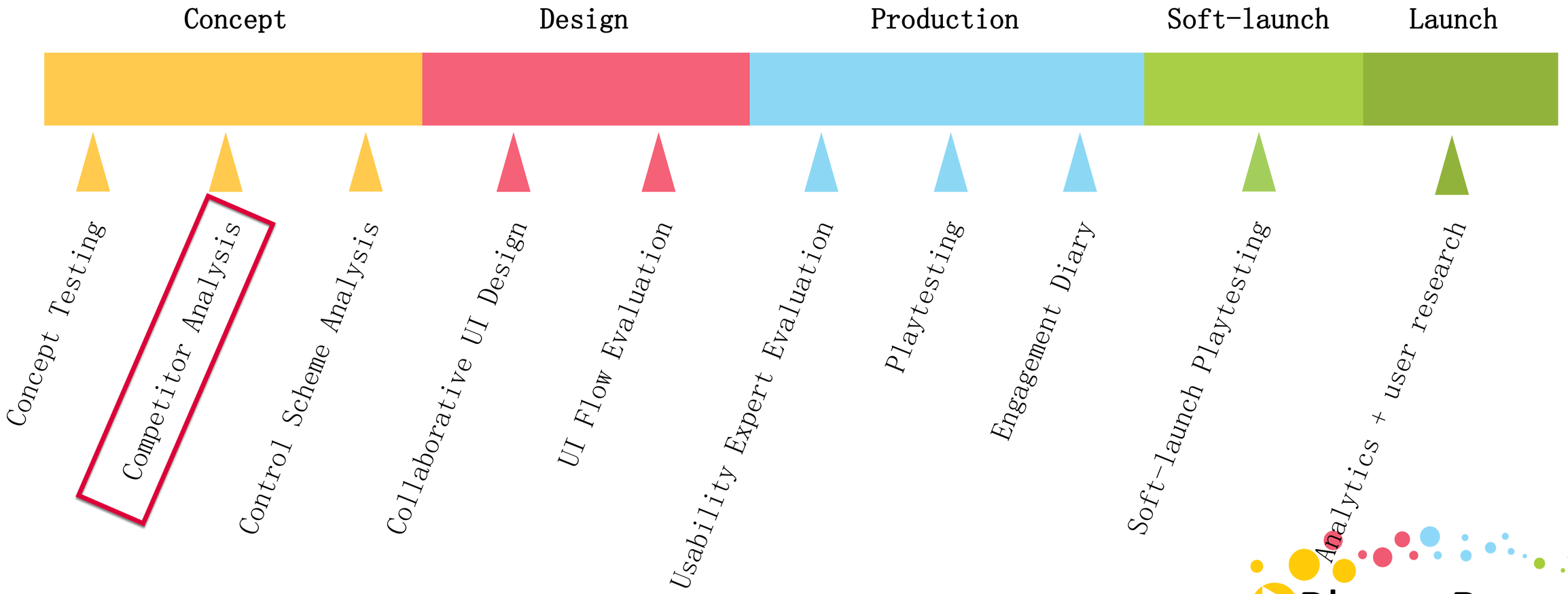
Soft Launch Playtesting

Ongoing Analytics + User Research



Player Research

UX Competitor Analysis



Player Research

Purpose

- Understand why a competitor leads and where it is weak

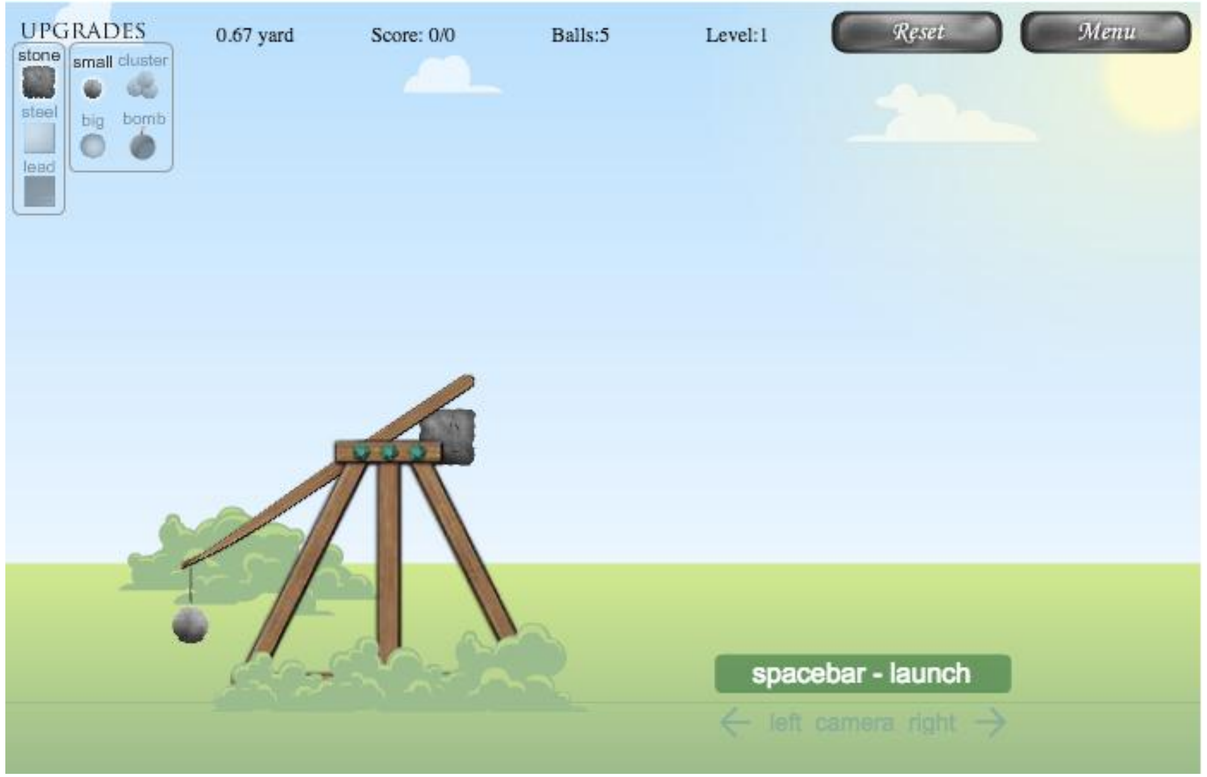
What can be assessed?

- Everything! But try to stick to the objective
  - Onboarding / tutorial
  - Usability / Interaction
  - Player experience
  - Social features

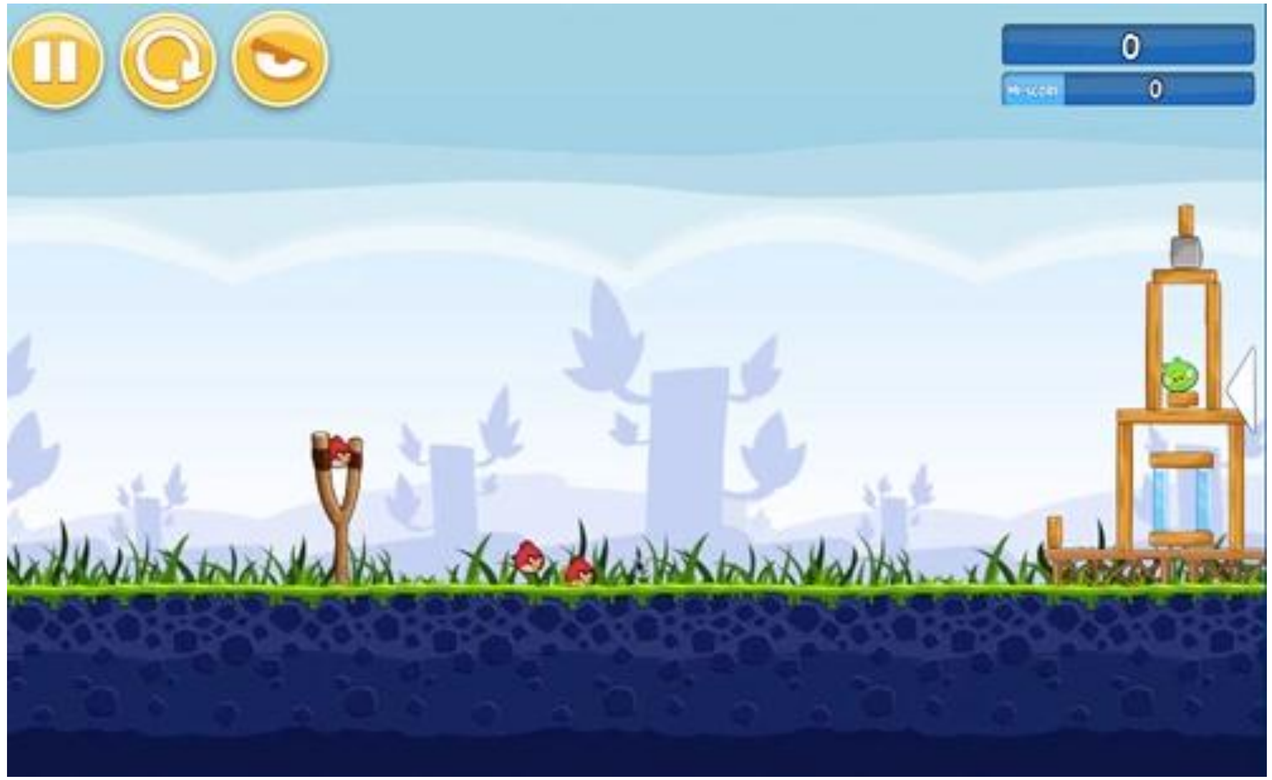
Player Research

APPEARANCE IS SIMILAR

Castle Clout



Angry Birds



Player Research

INSTRUCTIONS

Castle Clout

"Use SPACE for launch and unlink missile from trebuchet"

Angry Birds

No text

Player Research

CONTROLS

Castle Clout

Complex mechanics

Angry Birds

Simple mechanics

Player Research

WHY SUCCESSFUL?

INSTRUCTIONS

CONTROLS

GOALS

REWARD

FEEDBACK

SURPRISE

AESTHETICS

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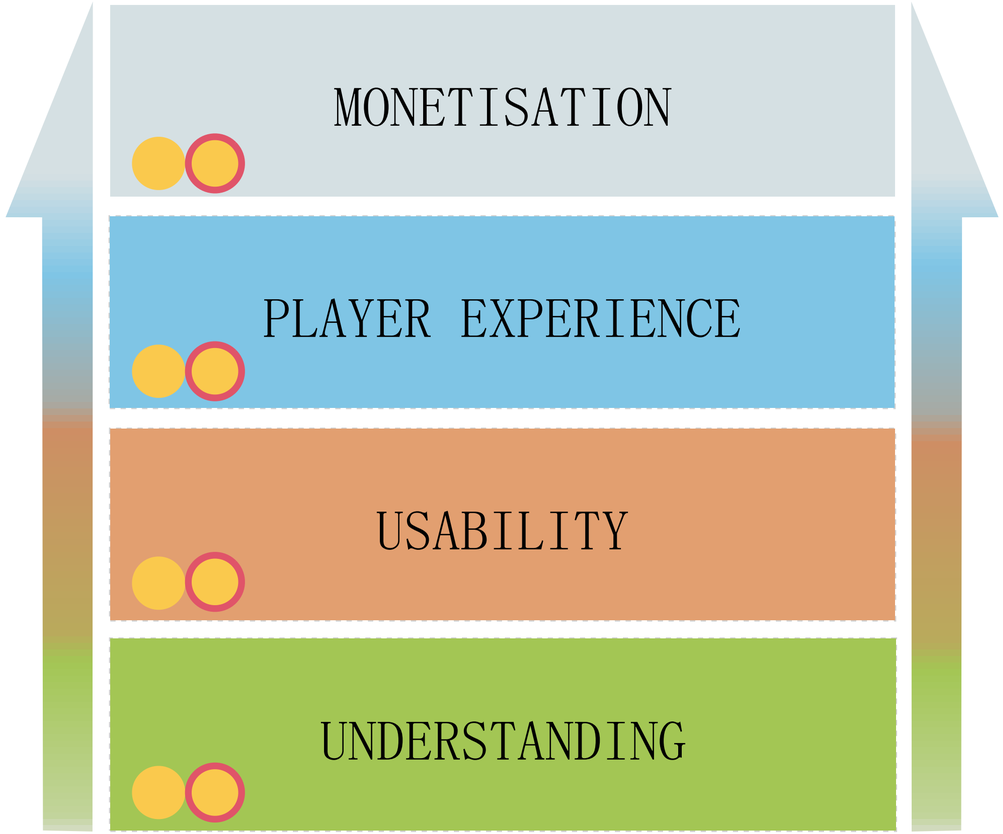
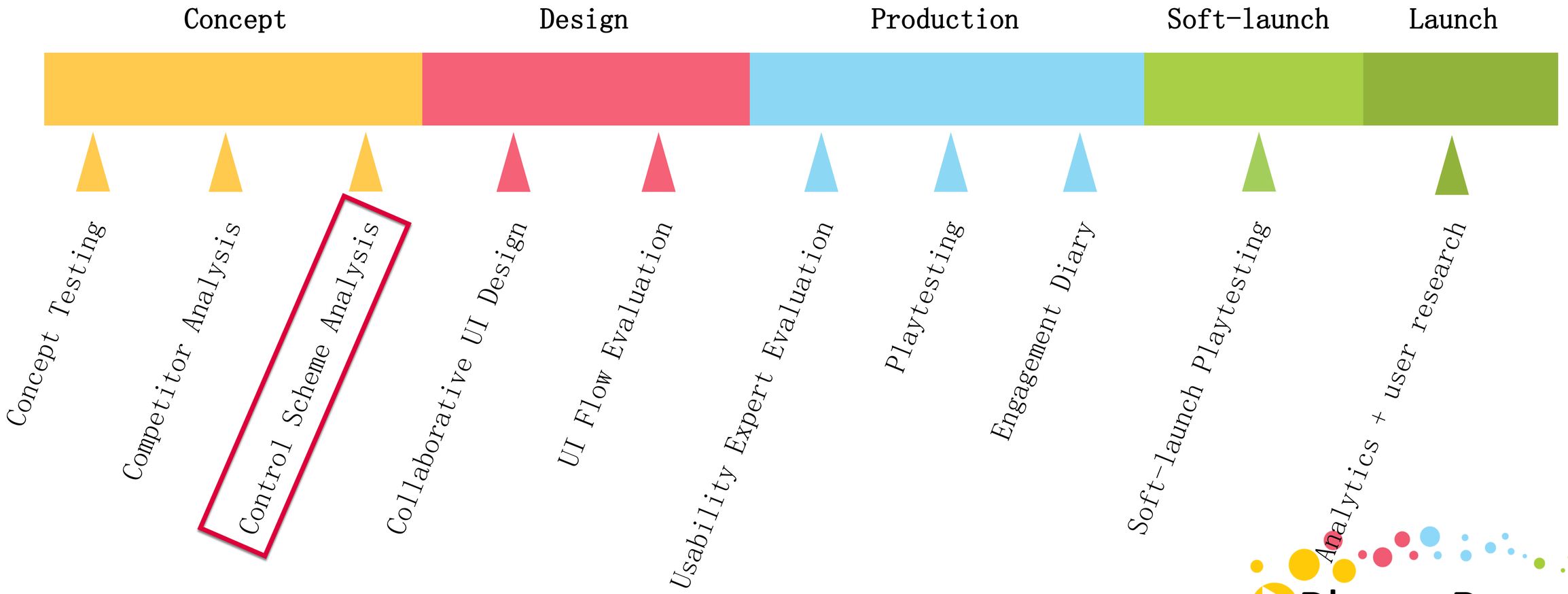


Player Research

Interaction Analysis



Player Research

Purpose

- Understand why controls feel intuitive and satisfying.
  Particularly true for touch-screen platforms

What can be assessed?

- Selecting items
- Navigating the environment
- Controlling cameras – rotating, zooming
- Controller mappings for vehicles

Player Research

Player Research

Assessing Alternative Control Schemes

What does the game require the player to do?

1. Stand still
2. Small movements (pixel perfect)
3. Large movements (spanning the screen)
4. Changing between the 3 states above
5. Change of direction

Player Research

Direct Touch	
1. Standing Still	●●●●●
2. Small movements	●●●●●
3. Large movements	●●●●●
4. Change between state	●●●●●
5. Change of direction	●●●●●

Old Touch	
1. Standing Still	●●●●●
2. Small movements	●●●●●
3. Large movements	●●●
4. Change between state	●●●●●
5. Change of direction	●●●●●

Tilt	
1. Standing Still	●●●●
2. Small movements	●●●
3. Large movements	●●●
4. Change between state	●●●
5. Change of direction	●●●

D-pad	
1. Standing Still	●●●●●
2. Small movements	●●
3. Large movements	●●●
4. Change between state	●●
5. Change of direction	●●

Concept Testing

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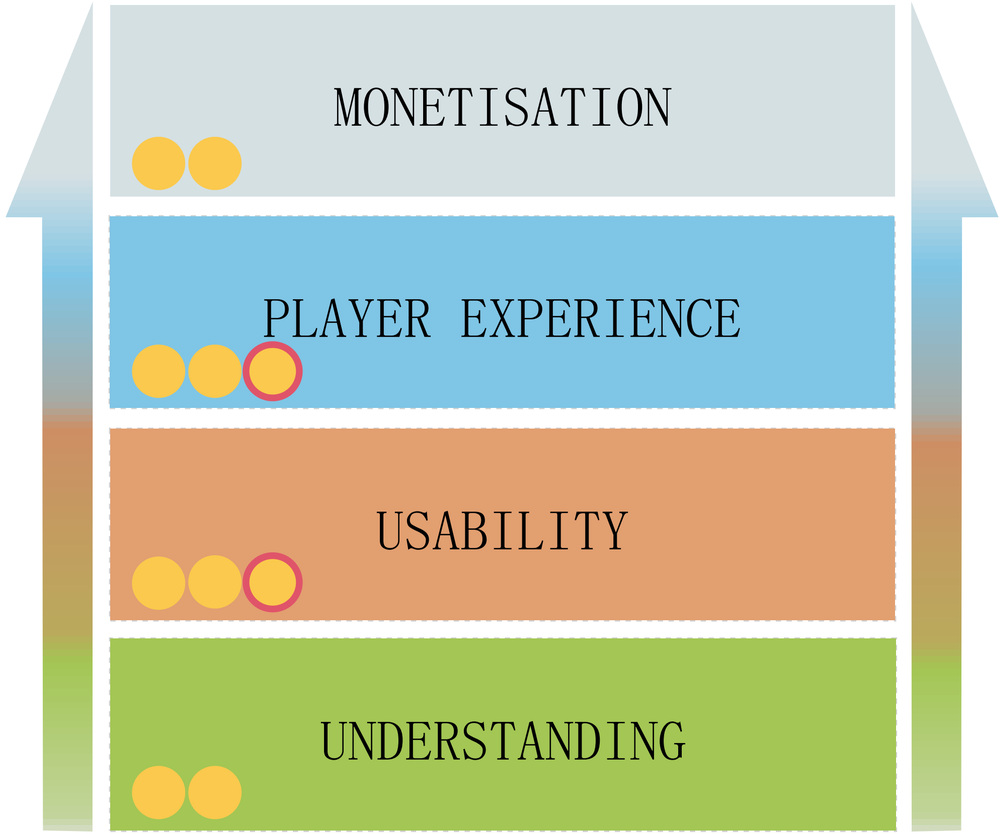
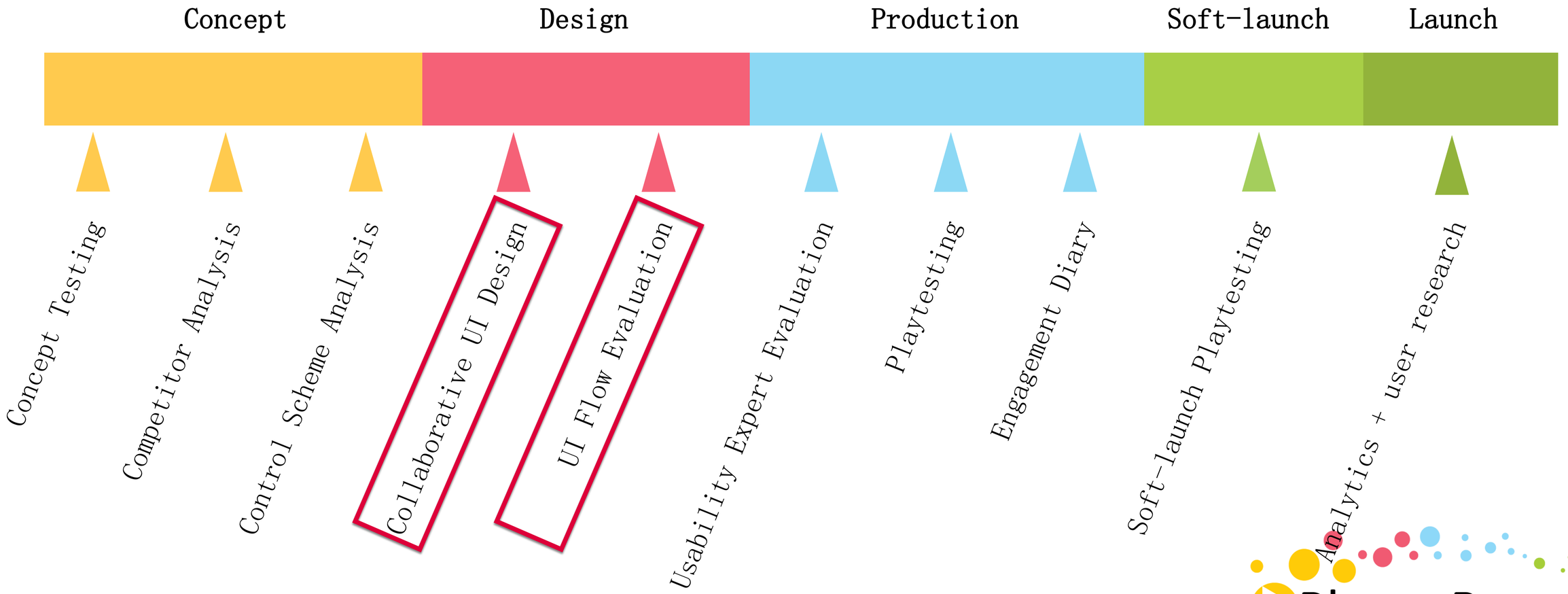


Player Research

Collaborative UI Design



Player Research

Purpose

- Work with UI designers to provide guidance on structure and flow of the interface, not how it looks.

How does this help?

- Get feedback sooner - if you've built it, it's too late.
- Save time - quicker to change at paper / prototype stage
- Save money - fewer expensive iterations
- Better UI - obvious mistakes caught, they don't make it to final product

Player Research

What can be assessed?

- Flow
- Layout
- Language
- Interaction models
- Consistency
- Icon understanding

Player Research

Player Research

Nielsen’s 10 Heuristics

- Visibility of system status
- Match between system and the real world
- User control and freedom
- Consistency and standards
- Error prevention
- Recognition rather than recall
- Flexibility and efficiency of use
- Aesthetic and minimalist design
- Help users recognise, diagnose, and recover from errors
- Help and documentation

Player Research

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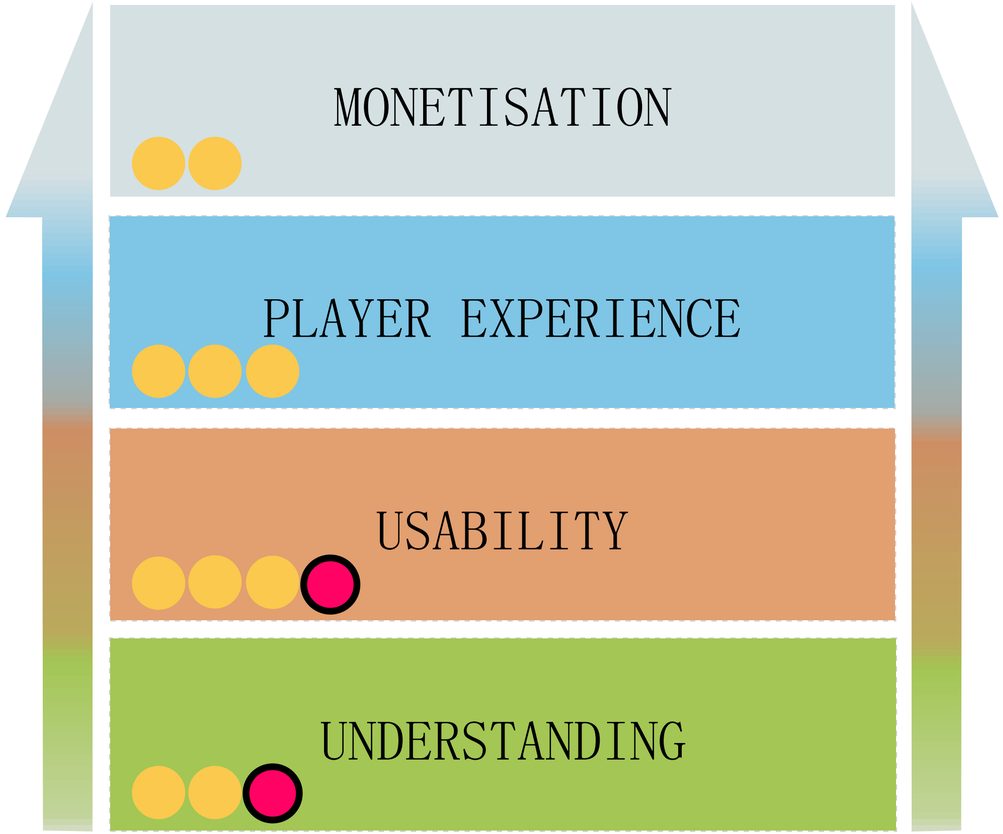
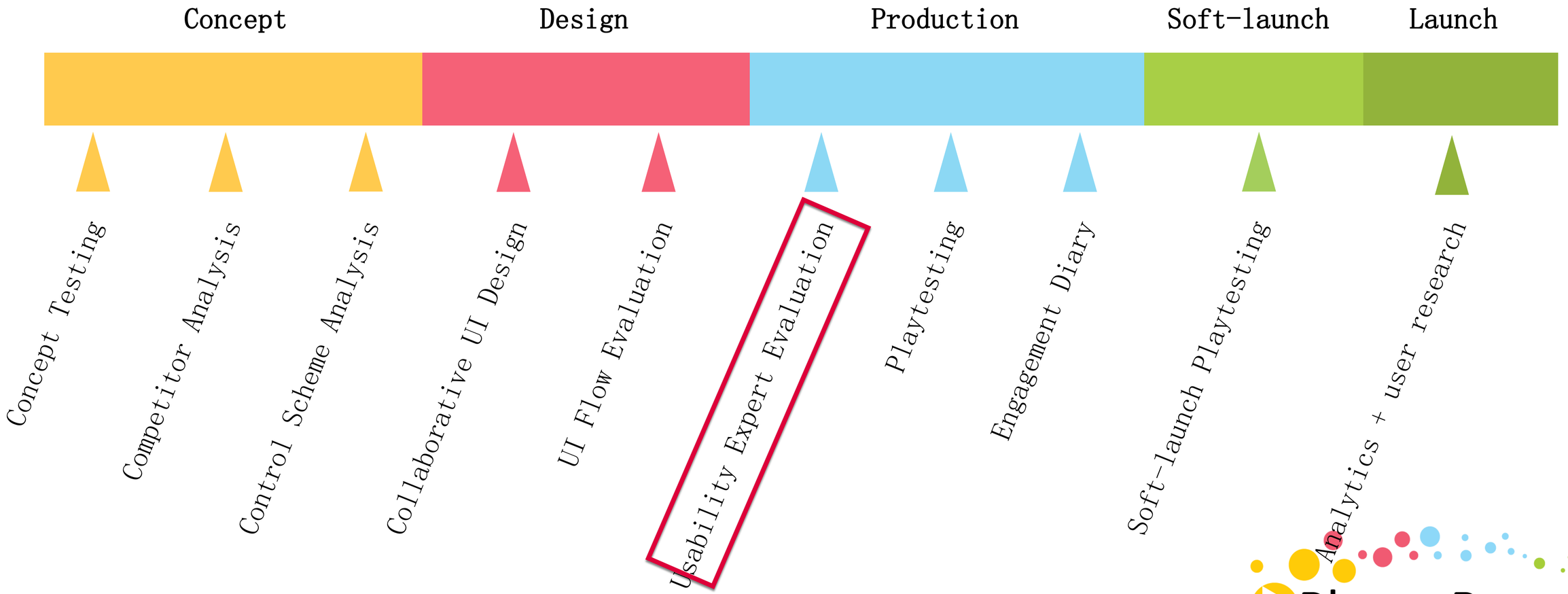


Player Research

Usability Expert Evaluation



Player Research

Purpose

- Assess the game prototype for usability issues - not player experience, that's best done with real players

What can be assessed?

- Tutorial / FTUE
- UI
- Interaction
- Retention
- Store usability
- Social features

Player Research

How

Two (important) user researchers independently assess the usability of the game. A heuristic set may be used as a starting point.

Benefits

Catch issues at prototype stage. The analysis should identity and rank issues allowing developers to focus attention on most important issues.

Assumptions are challenged early in the development process.

Player Research

Example Heuristics

Usability	1. Introduction	The game’s initial experience (menus, introduction to concepts)
	2. Controls	How the user physically interacts with the game
	3. UI	The visual and auditory interface
	4. Feedback	The player is given clear feedback at all times
	5. Goals	The player’s aims and objectives
Gameplay	6. Pace	The rate of user interaction and game speed
	7. Focus	All mechanics / features are essential to gameplay
	8. Replay	There are compelling reasons for the player to return
	9. Fun	Overall, the game is enjoyable to play

Name of Game: _____

Rate each component (put a tick in the appropriate box)

	Strongly disagree		Strongly agree
Introduction The game explains enough info to get started			
Controls The controls are appropriate for the target audience			
UI The visual interface is easily understood			
Pace The speed of interaction is appropriate for the game			
Focus All mechanics / features are essential to gameplay			
Goals It's always clear what the player has to do.			
Feedback The player is given clear feedback at all times			
Replay There are compelling reasons to replay the game			
Fun Overall, the game is enjoyable to play.			
Final score			/18

Justification

Player Research

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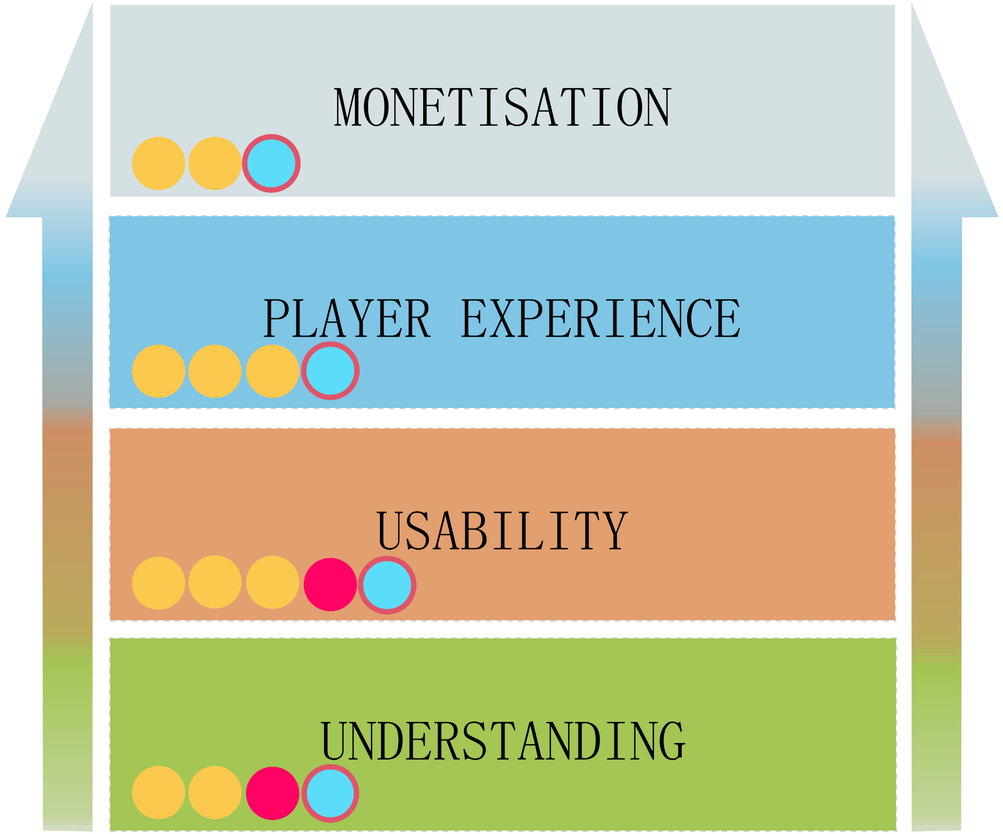
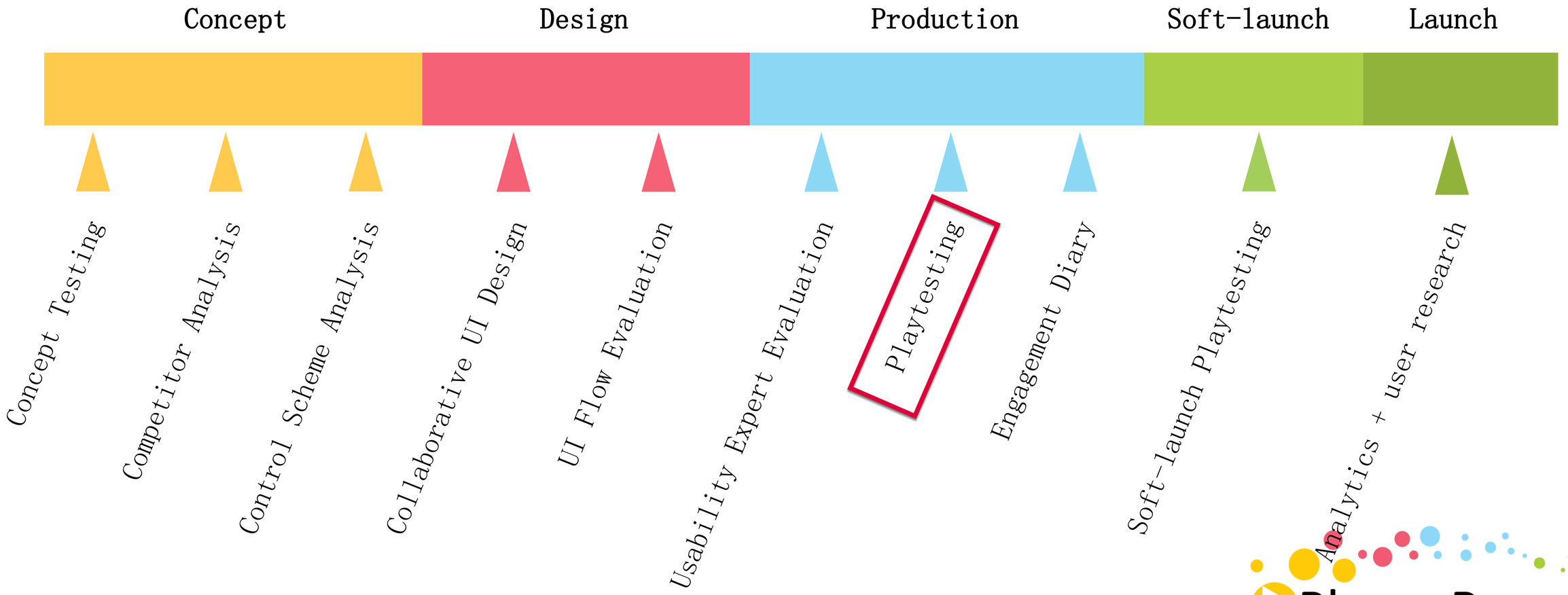


Player Research

Playtesting



Player Research

Purpose

- Playtesting – Evaluating the current game design by analyzing the behaviour and perceptions of real players

How does it help?

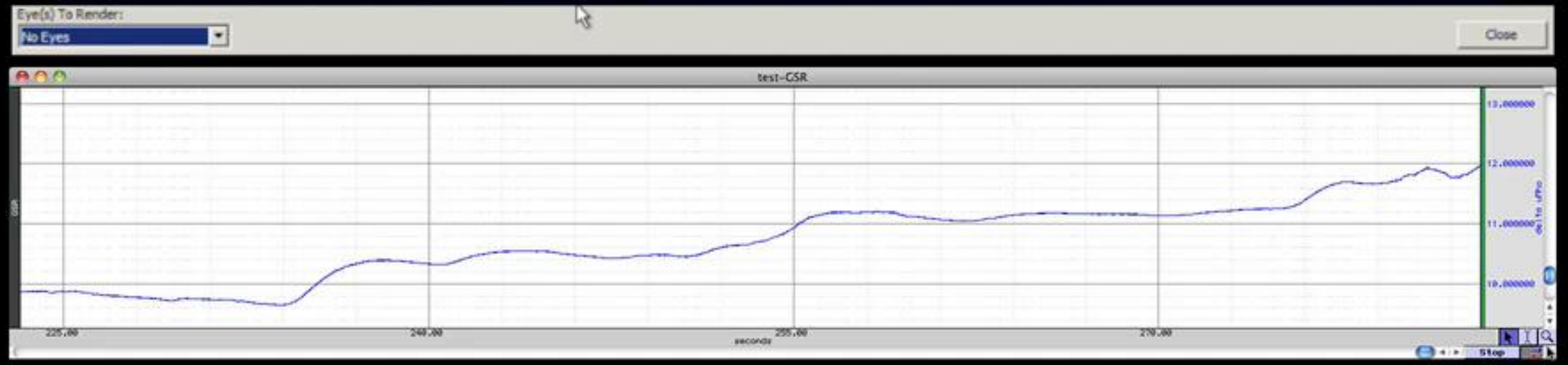
- Assess design assumptions – against real players
- Remove opinion
- Discover unknown issues
- Improve the player experience

Player Research

Sid Meier – “A game design is just hypothetical until it’s actually been played by your target audience, only then will you know if your idea works or not”

Player Research

2 June 2011 12:56:10



Player Research

Playtesting

Observation Room

Player Research

Our 9-stage Playtest Process

PREPARATION	IN SESSION	ANALYSIS
1. Identify purpose	5. Observe	7. Analyse
2. Design study	6. Interview	8. Report
3. Recruit players		9. Communicate
4. Internal playtest		

Player Research

Communication is Key

Reports should be visual, each issue should have a screenshot

Video evidence is powerful

Rank issues - what needs fixed today?

DO NOT

- Wait until the end of development to playtest

- Use players you already know (friends / family)

- Defend your game design / correct their answers

Player Research

GAMEPLAY - CHARACTER

GOOD PRACTICE

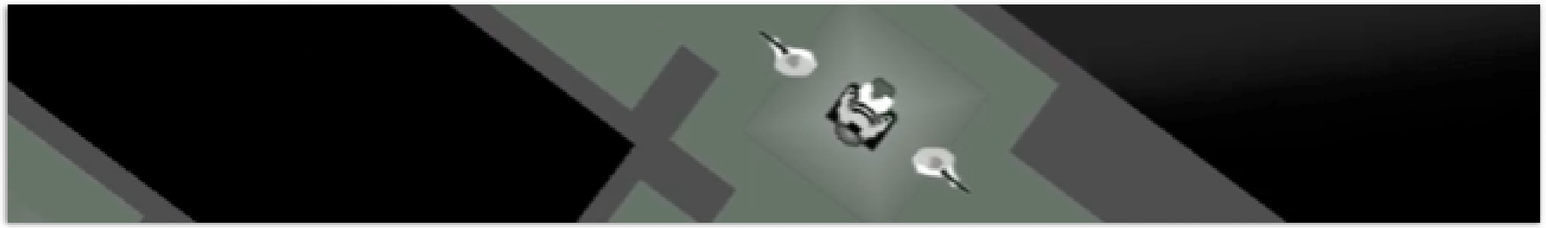
Pickups Motivating: Players were motivated to explore ship interiors and pick up power ups. This collecting behaviour occurred even despite players saying that they **did not understand what the power ups did**, with players unclear if the upgrades were for your ship, the enemy ship you were on, or for the character you were controlling. This initial, intrinsic, motivation to collect stuff likely will not last in the long term without a clear benefit, but it does show that teaching players to pick stuff up may not be an issue.

GOOD PRACTICE

Zooming Out for Long Range Shots: Players made good use of the zoom on the ship to kill guards from long range. Although, some players commented that this did feel unfair that they could see the guard from further away but the guard didn't react to them. Since guard vision is not indicated (see page 29) players assume it is the same as theirs.

GOOD PRACTICE

Enemy Character Speed: With the exception of player 2, who we suspect is not the target audience, players were fine with the speed at which enemies in the game moved and shot, stating that it was at the appropriate level of challenge in the current prototype. They liked that it was hard and the guards reacted quickly. Players did want the enemies to be "smarter" and more "realistic" in their behaviour (see page 37).



GAMEPLAY - CHARACTER

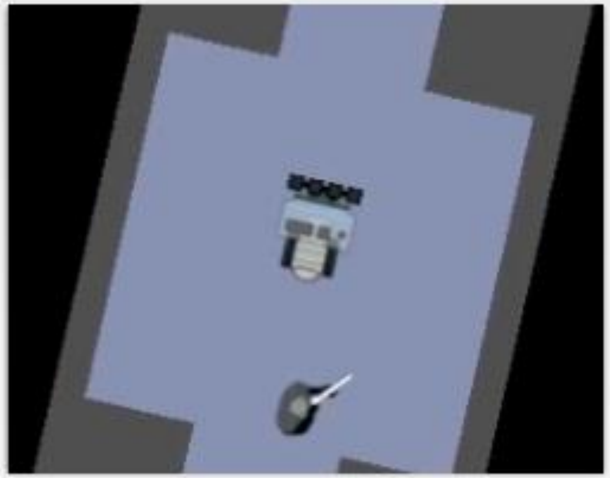
HIGH PRIORITY

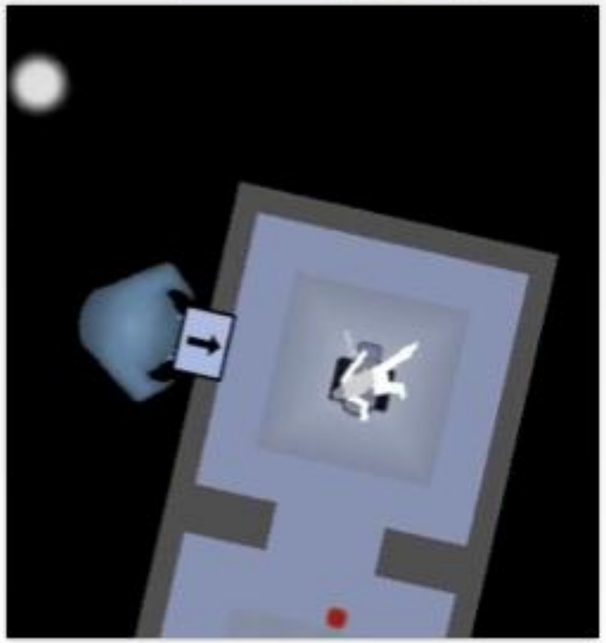
Computer and Captain's Chair Not Intuitively Recognised: Players did not intuitively recognise the computer as a computer, nor easily identify the captains chair from the other chairs. Rather, players took a trial and error approach, which was complicated due to the aforementioned relatively small activation areas on these objects (see page 30).

Once players did use a computer or captain's chair once, they did tend to know how to find them again though, and indeed players were observed completing a mission and then going to the computer on the same ship to get their next mission.

Suggestions:

- The final art for these objects should be evaluated for clarity with players, in that players should be able to easily differentiate interactive objects by sight, including being able to tell that it is a) interactive and b) a distinct class of interactive compared to other types of interactive object and c) have some indication of what its function may be
- If an "interaction" or "use" key was introduced (see page 28) a prompt to "Press E to Interact" or "Press E to Interact with Computer/Captain's Chair" would increase clarity





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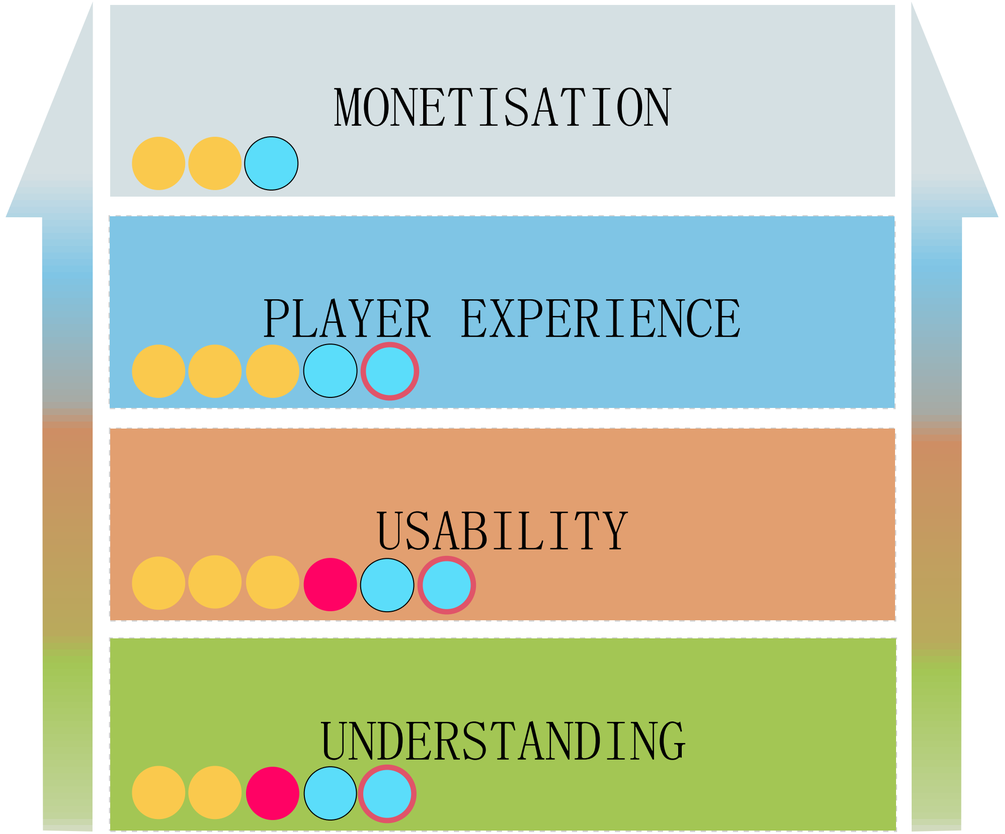
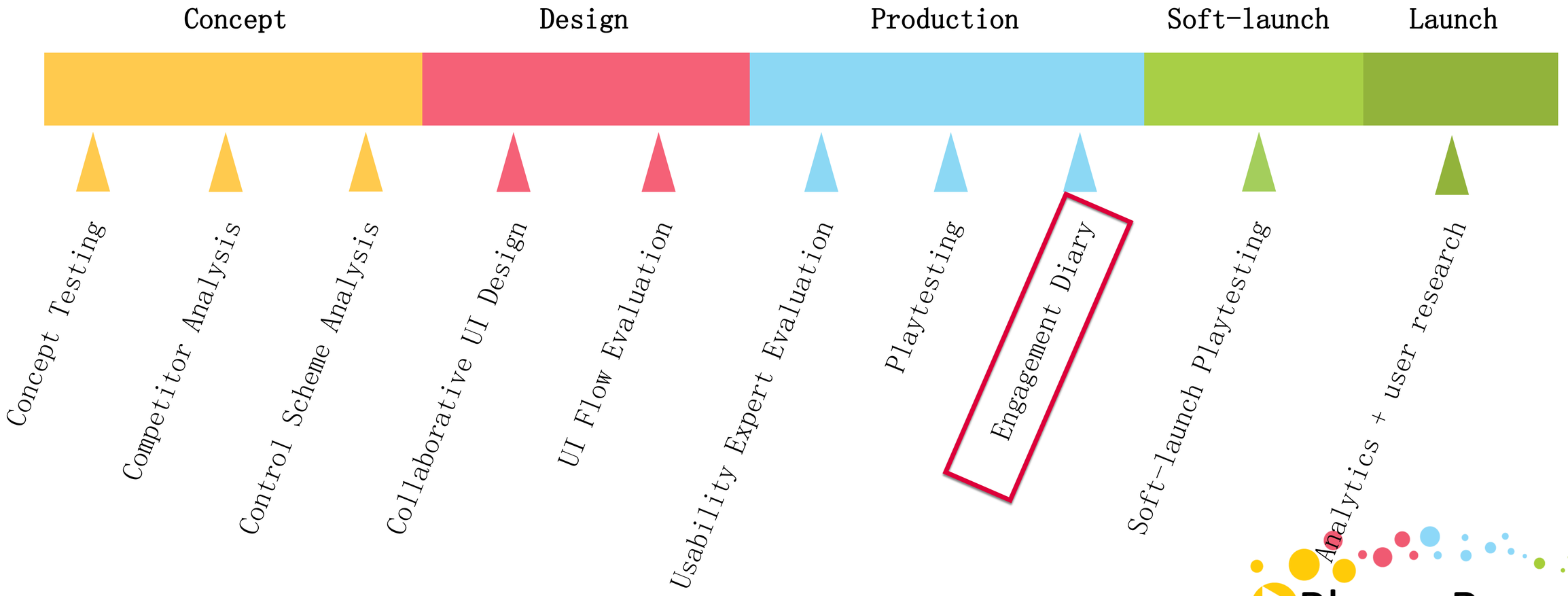


Player Research

Engagement Diaries



Player Research

Purpose

- How do players experience with your game over a longer period of time (1 weeks to 1 month)?

What can be assessed?

- Why did they stop playing?
- How are they experiencing the game?
- What makes them decide to return to your game again?
- Why did they decide to make an IAP? Was it worth it?
- Did they decide against making an IAP? Why?
- Did the game meet their expectations?

Player Research

How

Recruit a manageable number of participants (suggest 12-20). Design an online questionnaire which the participant will complete after each game session. Make several short interviews with the player based on the data throughout the play period, analyse and report findings.

Benefits

Understand why players behave as they do.

Necessary complement to analytics

Player Research

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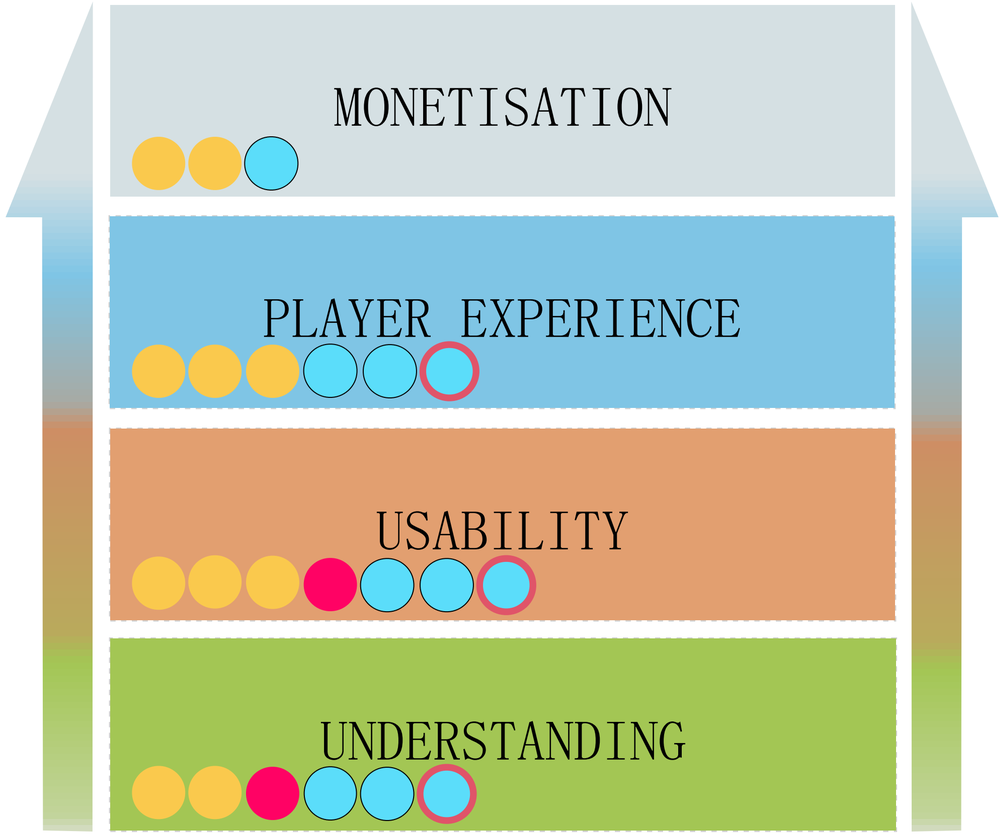
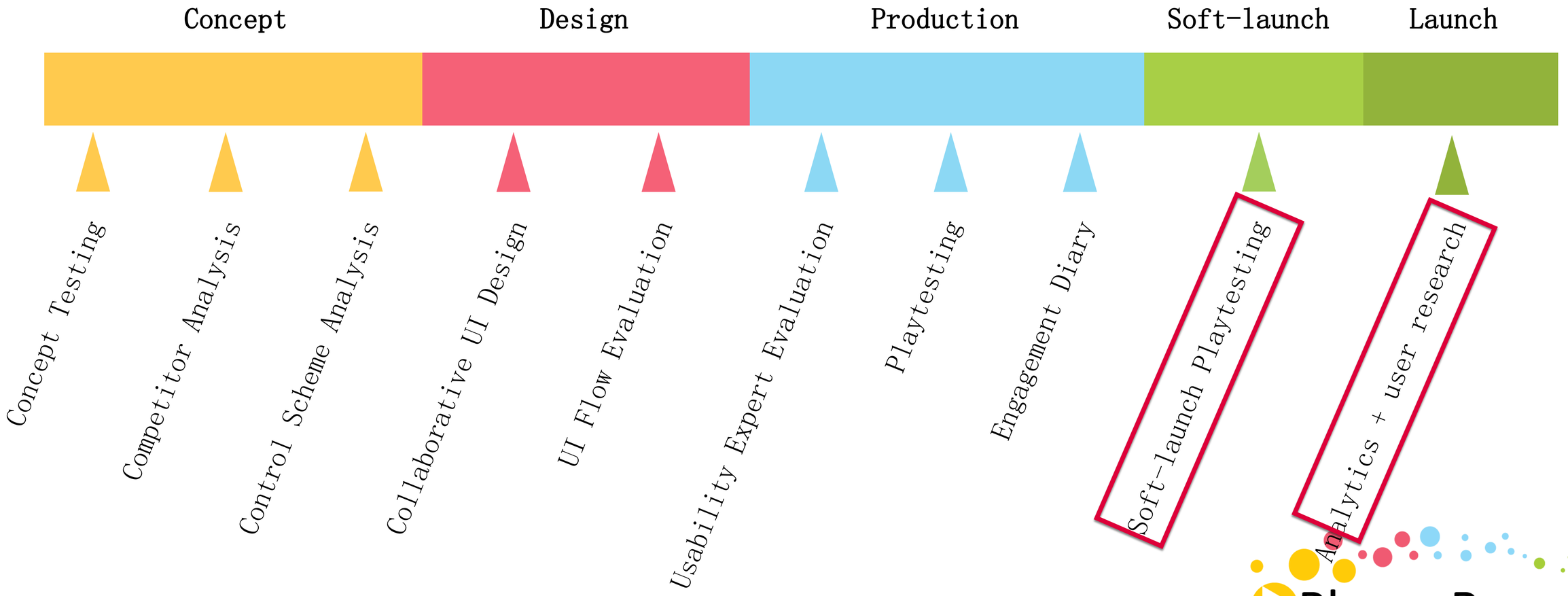


Player Research

Soft-Launch and Beyond



Player Research

Purpose

- How do large number of players experience your game over a longer period of time (1 - 3 months)? Catch issues in soft launch before global launch.

What can be assessed?

- Player behaviour of items being tracked with analytics. Fewer items may be better.

Player Research

How

- Use analytics to assess where your issues are occurring (drop-off), then do user research (expert review or playtest) to understand why. Make the fixes and analyse again to confirm issues has gone.

Benefits

- Understand where and why your issues are occurring

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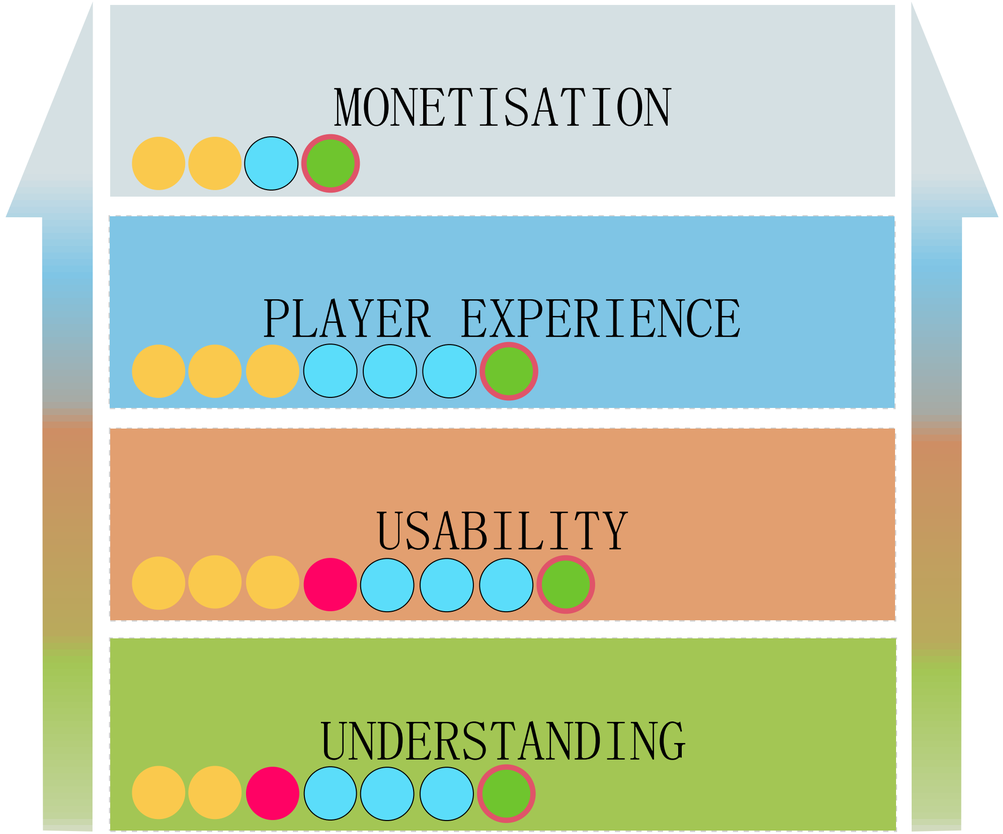
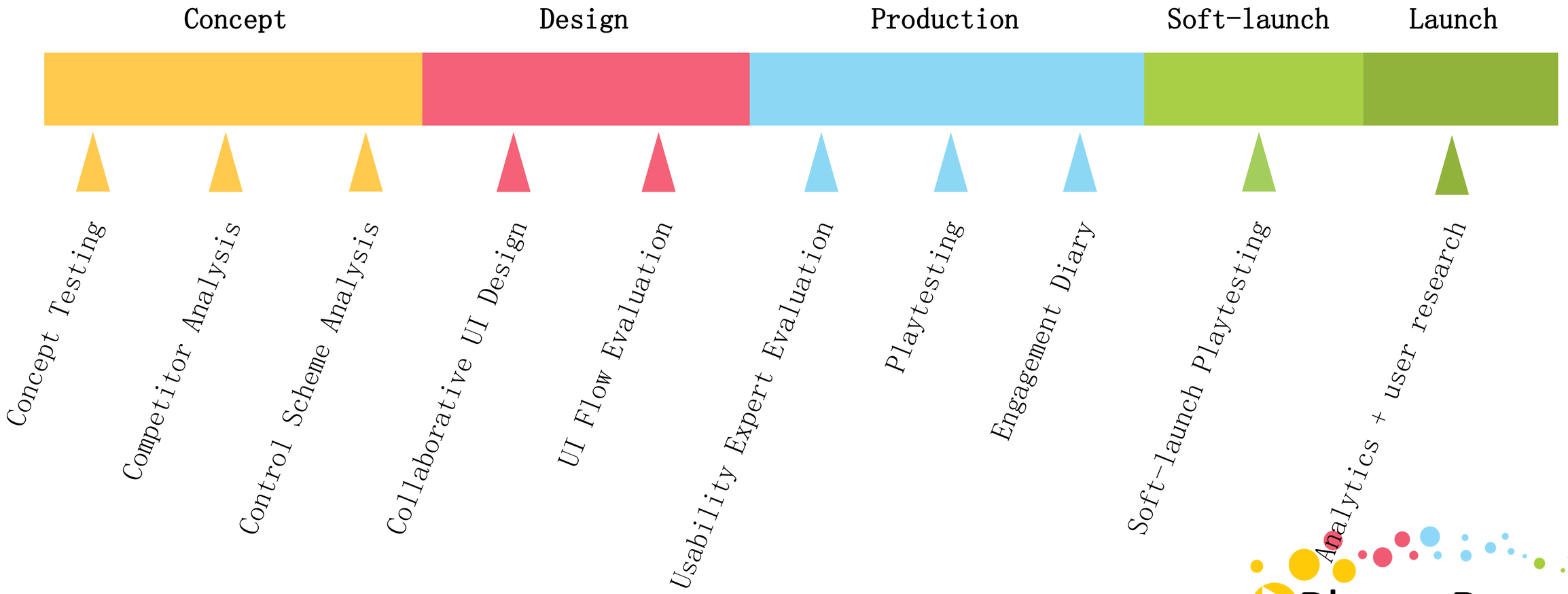


Player Research

Summary

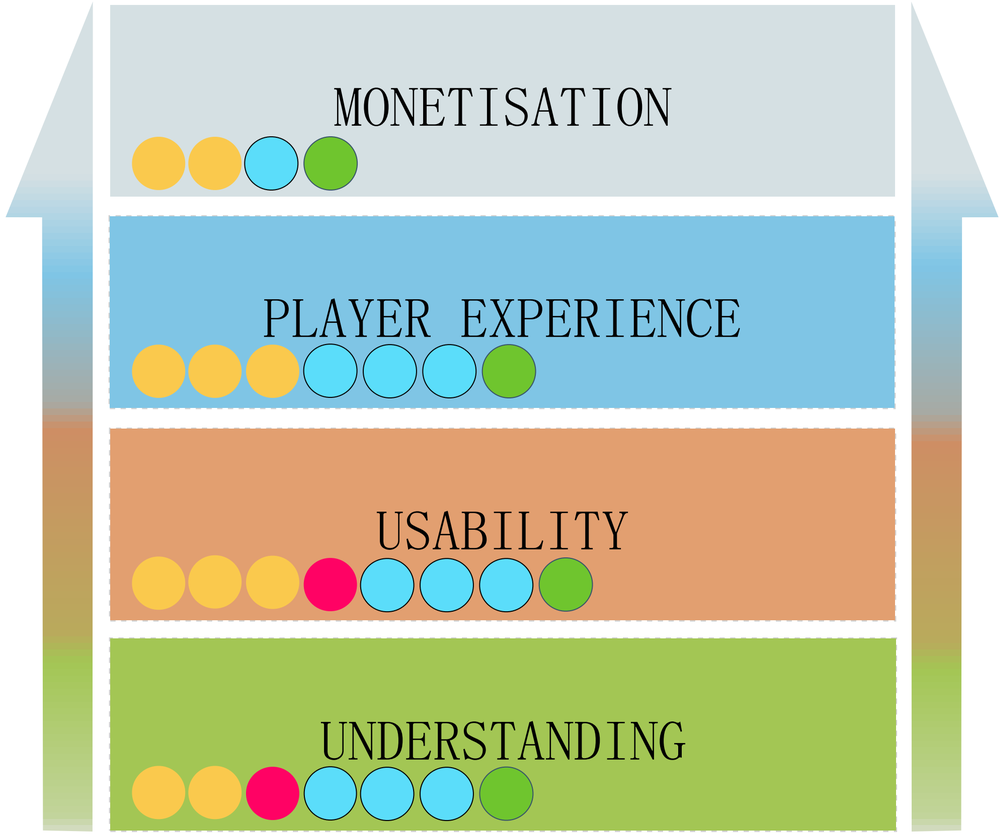


Player Research

You have many opportunities to polish and improve the player experience of your game

When combined into a process, this is proven to help create leading games.

What’s stopping you doing this on your current game?



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