

Read the climb

Part A looks at the metrics in a game you know. Part B gives you a launch week of telemetry from Pip's Peak and asks you to find out where players leave and why. Part C is a two-minute data pitch.

PART A · PAIRS · 15 MINUTES

- Analyse:** pick a game. List **3 in-game metrics** and **2 performance metrics** (frame rate, load times, crashes, latency). For each: how is it tracked, and which design decision would it inform?
- Research:** choose one tool or method (an analytics platform such as Unity Gaming Services Analytics or GameAnalytics, server logs, heatmaps, surveys). How does it work, and what does it give developers?
- Share:** be ready to give one metric and the decision it would change.

Starting points (from Therese's notes)

Game	Example in-game metrics
League of Legends	KDA ratio, gold earned, creep score, objective control
Fortnite	Eliminations, damage dealt, placement, materials gathered
World of Warcraft	XP, gold, achievement points, raid damage and healing
Minecraft	Blocks mined, items crafted, distance travelled, time played
Overwatch	Eliminations, objective time, healing done, ultimate use
Hades	Runs completed, enemies defeated, boons collected, time per run
The Witcher 3	Quests completed, monsters defeated, alchemy crafted, dialogue choices
FIFA / EA FC	Goals, match wins, possession, player ratings
Stardew Valley	Crops harvested, fish caught, money earned, Community Center progress
Call of Duty	Kills/deaths, accuracy, objective score, playtime

PART B · THE GAME AND THE DATA

Pip's Peak is an invented mobile climbing game: a five-step tutorial (1 Tap to climb, 2 Hold to grip, 3 Swipe to wall-jump, 4 Collect a gem, 5 Reach the flag), ten levels (Mossy Steps, Pine Ledge, Echo Wall, Gusty Gap, Ice Chimney, Crow Rock, Rope Bridge, Night Climb, Storm Shelf, The Summit), gems to spend on skins in the shop, and a climbing club that unlocks after Level 3.

The data is synthetic: made up for teaching, 2,000 players who installed in launch week, followed for 30 days. File: **CRE342_W8_PipsPeak_Telemetry.xlsx** (CSV versions also provided).

Sheet	One row per...
Read me	column meanings
Players	player: device_fps, tutorial_step_reached, highest_level_completed, sessions, returned_d1 / d7 / d30, joined_club, gems_earned, gems_spent, spend_gbp
Attempts	player per level they started: attempts, deaths, completed (1/0), minutes

PART C · DATA PITCH · 2 MINUTES PER GROUP

- The chart:** one clear chart, axes labelled.
- The finding:** one sentence with a number in it.
- The change:** what you would change in the game.
- The test:** how you would know it worked (the metric, chosen first; an A/B test).

Before you pitch, ask yourselves: could anything else explain it? Correlation is not cause.

Part B · groups of 3–4 · 35 minutes: find three findings

Look at	Ask	Hint
Funnel	How many players reached each tutorial step and finished each level? Where are the two biggest drops? (Level 4 is the lecture's worked example: find the other.)	Players: count by tutorial_step_reached and highest_level_completed
Retention	D1, D7 and D30 overall, then by device_fps and by joined_club. What explains each difference? Is the club a cause?	Pivot: rows device_fps, values average of returned_d7
Difficulty	Completion % and deaths per attempt for each level.	Attempts: sum attempts, deaths, completed by level
Economy	Gems earned vs spent, by highest level reached. What is missing from the shop?	Ratio of total earned ÷ total spent
Money	Conversion rate, ARPU and ARPPU.	Payers: spend_gbp > 0

Spreadsheet help: Excel Insert → PivotTable, or Google Sheets Insert → Pivot table. COUNTIFS and AVERAGEIFS also work. An average of a 1/0 column is a percentage.

Finding 1	
Evidence (numbers)	
Hypothesis	
Design change	
How you'd measure it	
Playtest question	

Finding 2	
Evidence (numbers)	
Hypothesis	
Design change	
How you'd measure it	
Playtest question	

Finding 3	
Evidence (numbers)	
Hypothesis	
Design change	
How you'd measure it	
Playtest question	