RLP-GAMEB · RLP Video Game Design B — Playtesting, Levels, Launch and the Capstone

Unit 1: Digital Prototypes and Ethical Playtesting

Practice Workbook. The same problems, in the same order, as the Practice sections of the online lessons.

Name _____ Period _____

Lesson 1.1 — Prototypes: Paper, Digital and Hybrid

FLUENCY

1. Low or high fidelity? (a) index cards testing a turn order; (b) a build with near-final art testing whether a jump feels heavy and satisfying; (c) gray boxes on screen testing whether a route is readable; (d) a polished scene testing emotional impact.

2. Name the three kinds of prototype and what each tests best.

3. What is the difference between a throwaway and an evolutionary prototype, and when should you decide which one you are building?

APPLICATION

4. Rewrite "Is the level fun?" as a specific, testable design question, and name what you will observe.

5. Match each design question to the cheapest prototype that answers it: (a) "Does the shop's price list let one strategy dominate?" (b) "Can players dodge the bat's swoop at speed?" (c) "Is a real-time map with paper character sheets workable for two players?"

6. Your concept is a platformer. Name two conventions players will arrive expecting, and explain why a designer must know them even if they plan to break one.

7. Explain in two sentences why the lesson calls the prototype a bridge, and what you should plan for as a result.

REVIEW

8. Review (Semester A): what is a vertical slice, and why is it not the right prototype for testing a new rule?

Lesson 1.2 — Build: A Greybox Prototype with Pickups, Hazards and a Win State

FLUENCY

1. Give the color-plus-shape coding the lesson recommends for a greybox, and why shape matters as well as color.

2. Name the three game states in the greybox prototype and the event that leads to each of the other two from playing.

3. What do these do in the scripts: *add_to_group("pickups")*, *print("Hazard hit at ", body.global_position)*, *return* at the top of the goal function?

APPLICATION

4. A level has five pickups. The player has collected two and touches the goal. What does the label show? What does it show after all five?

5. Find the bug. A student's goal says "You win!" even though pickups remain:
   var remaining := get_tree().get_nodes_in_group("pickup").size()

6. Why does the hazard reload with *reload_current_scene.call_deferred()*? Explain in your own words.

7. The player sometimes walks right through a pickup without collecting it. Name the debugging tool from the lesson you would turn on first, and what you would look for.

8. Write the state-change test plan for the greybox as a list of four tests, each with its expected result.

REVIEW

9. Review (Semester A): what does an Area2D do that a StaticBody2D does not?

Lesson 1.3 — Running an Ethical Playtest

FLUENCY

1. List four things a consent script must tell a tester before they play.

2. Who may be your testers, and what is never allowed when finding them?

3. Label each note as an observation or an opinion: (a) "Tester A paused 8 s at the fork." (b) "Tester B: 'The music is annoying.'" (c) "Tester C died at the spikes three times." (d) "Tester A thinks it needs a map."

APPLICATION

4. Your 10-year-old cousin wants to test your game while you record a camera video of them. What must happen first, and what is the safest way to record?

5. A tester says, "Just tell me how to get past this bit." Write your facilitator response and what you note down.

6. A tester says "Add a double jump." Following the lesson, what do you write down, and what do you do with it?

7. Your grandmother says "It's great!" after falling into the same pit five times. What two pieces of data do you have, and which is stronger?

8. Rewrite this note so it protects privacy: "Grandma Rosa got lost at the fork and said my game was confusing."

CHALLENGE

9. Nobody is available, so you run a self-playtest. List the structured steps from the lesson and explain why the session is labeled S and weighed lower.

REVIEW

10. Review (Lesson 1.2): your death data comes from the hazard's print line. Why is that observation stronger than a tester saying "the spikes are unfair"?

Lesson 1.4 — Bug Reports and the Iteration Log

FLUENCY

1. List the seven parts of a bug report from the lesson.

2. Give the four-level severity scale with one example of each.

3. Name the Godot tool: (a) shows print() messages and warnings; (b) lists errors with script and line number; (c) pauses the game when a line runs; (d) shows the live scene tree while the game runs.

APPLICATION

4. Rate each bug's severity: (a) the pause menu's title is misspelled; (b) the save point erases progress; (c) the door only opens if you walk away and back; (d) a moving platform sometimes carries you through a wall, but you can take a longer route around it.

5. Rewrite this as a proper bug report title and steps: "Game broken on the bridge level, your code is bad."

6. Functionality bug or usability issue? (a) the door does not open when you have the key; (b) nobody notices the key behind the crate; (c) the jump button does nothing after remapping; (d) testers cannot read the timer over the bright sky.

7. Your build is 0.3.2. What number comes next after (a) a bug fix; (b) then a new feature? Write the zip name for the second one dated 2026-12-01.

8. In May 2025 the BLS estimated a mean wage of $93,990 for Missouri's software quality assurance analysts and testers and $111,490 nationally. Find the difference and the Missouri mean as a percent of the national mean (one decimal place).

CHALLENGE

9. Your zipped project is 450 MB and your USB drive has 2,000 MB free. How many dated copies fit? Then describe a 3-2-1 backup plan for the project.

REVIEW

10. Review (Lesson 1.3): why should a bug report found during a playtest refer to "Tester B" rather than the tester's name?

Unit 1 checkpoint

1. A team wants to know whether a 45-second timer feels tense for new players. Which question type is this, and what prototype fits?
   A. A rules question; paper
   B. A feel and timing question; a digital greybox
   C. A marketing question; a trailer
   D. An art question; high-fidelity concept art
2. True or false: An evolutionary prototype can be built with messy code because it will be thrown away.

3. Which is the best design question?
   A. Is it good?
   B. Will people like it?
   C. Do new players notice, without instructions, that the cracked wall can be broken?
   D. Is it finished?

4. A level has six pickups and the player has collected four. Touching the goal shows "_____ left to collect".

5. Why does the hazard use call_deferred() to reload the scene?
   A. It is faster
   B. It waits until the physics step finishes, avoiding errors
   C. It saves the game
   D. It is required for print()

6. True or false: Before you observe a 12-year-old relative play, their parent or guardian must say yes.

7. Which note is an observation?
   A. Tester A loved it.
   B. Tester A paused 7 s before the blue platform.
   C. Tester A wants more levels.
   D. The game is too hard.

8. A tester asks, "What do I do now?" The best response is…
   A. "Jump on the box."
   B. "What do you think you should do?" and note that they were stuck
   C. Take the controls and show them
   D. "It's obvious."

9. The game crashes whenever the player opens the map. Severity?
   A. S4 Cosmetic
   B. S3 Minor
   C. S2 Major
   D. S1 Critical

10. After build 0.4.0 gets a bug fix it becomes _____; after a new feature is added to that it becomes _____.

11. True or false: A USB flash drive can be unplugged as soon as the copy finishes; ejecting it first is optional.