

STONEBOUND

Designing a Cross-Platform Learning Economy

A CASE STUDY IN GAMIFICATION & LEARNING EXPERIENCE DESIGN · IN PROGRESS — WEEK 3 OF 8

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The Problem

IXL and Miacademy are strong platforms with their own reward systems — stickers and achievement counts on IXL, an in-app currency and castle-building economy on Miacademy. They work well as designed.

But running three kids through them in parallel, as a parent, surfaces two things the platforms can't solve on their own: keeping engagement fresh past the novelty of in-app rewards, and giving the parent enough narrative and pacing control to run three kids' timing without constant one-on-one hovering.

Stonebound was built to solve for the parent's side of that equation as much as the kids' — a layer that turns independent platform work into something with shared stakes, so three kids can move through it with less direct supervision and more self-sustaining motivation.

The system was designed for three kids and built to scale — a design assumption that's already been tested: the campaign has since grown to eight children, the three core Wielders plus five drop-in guests assigned to the Stone teams, without a redesign.

The Design Thesis: Two Economies, Not One

The core design decision is that progress and spending are tracked separately, on purpose. Collapsing them into a single number is the most common failure mode in gamified learning — kids optimize for the currency, not the learning underneath it.

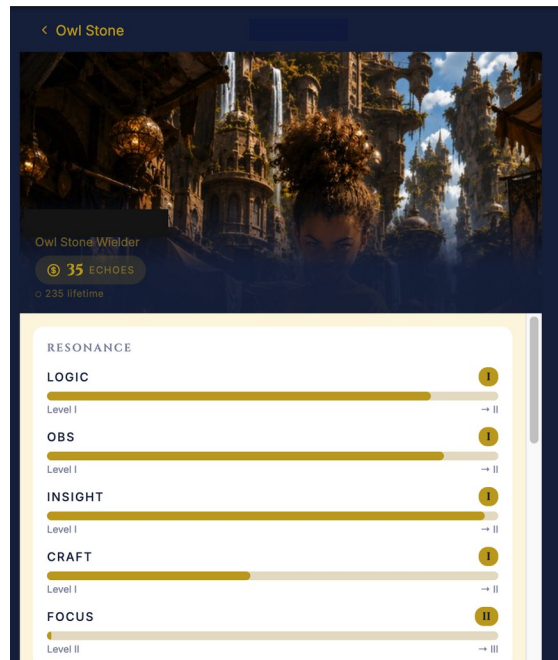
Resonance — the progression economy

Five stats (Logic, Observation, Insight, Craft, Focus) build across the summer through four thresholds — Level I, II, III, and Master, set at 60, 150, and 280 points. The stats are the kid-facing layer of a two-layer design: underneath, each maps to real academic skill domains tracked against grade-level standards and the kids' actual IXL/Miacademy task lists; on the surface, kids see identity and momentum, not grades. Resonance cannot be spent, and it deliberately measures ceilings rather than deficiencies — it exists to answer one question for the child: am I actually getting better at this?

Echoes — the spendable economy

A prize-point balance, earned mostly through Wednesday's independent platform work, spendable against a personal prize menu tuned to who each kid actually is. Echoes answer a different question: did my effort earn me something I wanted?

Separating the two means a kid can feel behind on mastery but flush on points, or vice versa, without either number invalidating the other. It also means the economy can motivate short-term effort (Echoes) and long-term identity (Resonance) at the same time, through the same activity.



The two economies as tracked live in the companion app — Echoes balance and lifetime total (top), Resonance stat levels (bottom).

The Bridge Mechanic: Advantages

The more distinctive move isn't the two currencies themselves — it's the mechanic that connects Wednesday's solo academic work to Thursday's shared, physical, narrative payoff. Clearing a mini-boss on IXL or Miacademy earns an Advantage: a physical, printed token that changes how Thursday's boss fight actually plays out.



Advantage tokens as printed — card stock, laminated, reusable across the summer.

Common advantages (Cipher, Shield) reward individual effort — clearing one mini-boss earns one token. The Map Fragment requires a full clear of both mini-bosses in the same week. The rarest tier, the Weakness Scroll, isn't a standing printed card at all — it only exists narratively, and only unlocks when all three kids full-clear the same week, turning siblings into each other's motivation instead of pure competitors. A kid who's already finished has a real reason to want their sibling to finish too.

Anti-Deflation Design

One specific decision is worth calling out on its own: the Echoes balance is displayed as balance over lifetime total (for example, 370 / 1,295), and the lifetime number only ever goes up, never down.

This was a direct response to a real problem — spending a hard-earned balance down to zero felt deflating, even when the purchase itself was exciting. Keeping a permanently-growing lifetime counter alongside the spendable balance preserves a visible sense of accumulation regardless of what's been spent. It's a small interface decision, but it's the kind of granular psychological-design call that separates an economy that's actually been designed from one that's just been themed.

Both currencies are tracked live in a companion web app built alongside the campaign (Node.js, Express, PostgreSQL) — a GM-facing panel for adjusting balances mid-session, and a kid-facing view showing the balance/lifetime split described above. Building the app in parallel with the campaign meant every economy decision, including this one, had to be workable in a live interface, not just on paper.

The screenshot shows a web interface for a GM Command panel. It is divided into two main sections: 'ECHO BALANCES' and 'RESONANCE CORRECTIONS'. Each section lists data for three original Wielders, represented by icons (a bird, a cat, and a dog). The 'ECHO BALANCES' section shows current Echoes and lifetime totals, with 'Adjust' and 'Lifetime' buttons. The 'RESONANCE CORRECTIONS' section shows various stats (Log, Obs, Ins, Cra, Foc) and a 'Correct' button for each Wielder.

ECHO BALANCES	
50 Echoes · 210 lifetime	Adjust Lifetime
35 Echoes · 235 lifetime	Adjust Lifetime
75 Echoes · 215 lifetime	Adjust Lifetime

RESONANCE CORRECTIONS	
Log: 39 · Obs: 55 · Ins: 49 · Cra: 25 · Foc: 74	Correct
Log: 51 · Obs: 53 · Ins: 58 · Cra: 27 · Foc: 61	Correct
Log: 58 · Obs: 61 · Ins: 57 · Cra: 32 · Foc: 58	Correct

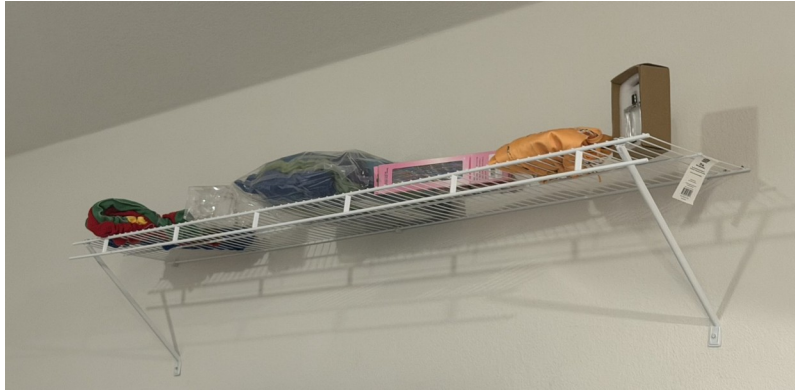
GM Command panel — live balance/lifetime and Resonance data across all three original Wielders in one view.

Evidence of Live Tuning

Design intent and real behavior don't always match, and the system has already needed a mid-run correction. A two-week gap opened in Wednesday mini-boss completion, threatening the eight-week pacing plan. Rather than redesigning the whole system, three targeted mitigations were introduced:

- An ambient prize-proximity display, so kids can see how close they are to a reward without asking

- A time-limited narrative Echoes bonus to re-incentivize catching up without inflating the base economy
- Tactile prize contact — a rare, deliberate break in the untouchable rule: taking each child's next prize down, letting them hold it, then returning it to the shelf. The endowment effect in miniature, powered by scarcity: an abstract point target became a physical object their hands remembered wanting.



The ambient prize display — visible daily but untouchable. Only each child's next prize sits on the shelf, out of reach in the room where sessions run; when it's earned, the next one takes its place. Attention stays on what's immediately reachable, never diluted across the whole menu.

Early signals suggest the economy is doing its job: by week three, every original Wielder had earned their first prize (lifetime totals in the 210–235 Echo range against a 400-point first unlock), and the completion backlog was caught and countered within two weeks of opening rather than compounding across the summer.

This is the part of the system that doesn't show up in a static design document — watching how real kids actually used the economy, catching where it broke, and patching it without collapsing the underlying structure.

Status

The full eight-week economy — all prize menus, point projections, and boss/advantage mappings — is designed and locked. The campaign is live, currently in week three of eight, and has grown from its original three participants to eight children — three core Wielders plus five drop-in guests, each with their own tracked Echo balance — with the underlying economy and app absorbing that growth without structural changes.

This case study will be updated as the remaining weeks run and full-summer data — completion rates, economy balance across all eight kids, and the finished Week 8 finale — is available.

Artifacts

Everything described above exists as a produced, in-use artifact and is available on request: the Economy Bible (full prize menus, point projections, and Wednesday structure for all eight weeks), the GM Binder (boss reference, advantage tracker, and sixteen session runsheets), the deployed companion app, and the printed materials — advantage tokens, mission cards, and per-week game components, all designed for home card-stock printing.