

Level Up: Empowering Students with AI Feedback

Case Study Presentation for McGraw Hill

Elliott Hedman

GoogleX

Lead UX Researcher

- Help build empathy for Self-Driving Car users.
- Removed steering wheel from self driving car.

IDEO

User Designer

- Brought a new focus around AI and Big Data to IDEO.

i-Ready

UX Lead

- Built UX Research and Design to support diverse, struggling readers
- Spearhead 10 Year relationship with Boys & Girls Club
- Shifted content from passive to interactive
- Brought HCD principles to i-Ready

mPath

Founder / UX Design Consultant

Helped these Education companies with UX Design

- LEGO
- Learning Labs
- ThinkCERCA
- McGraw Hill
- Toddlers Can Read
- ClassCraft
- Outschool
- Education.com
- Sphero

Wonder.io/ Level Up

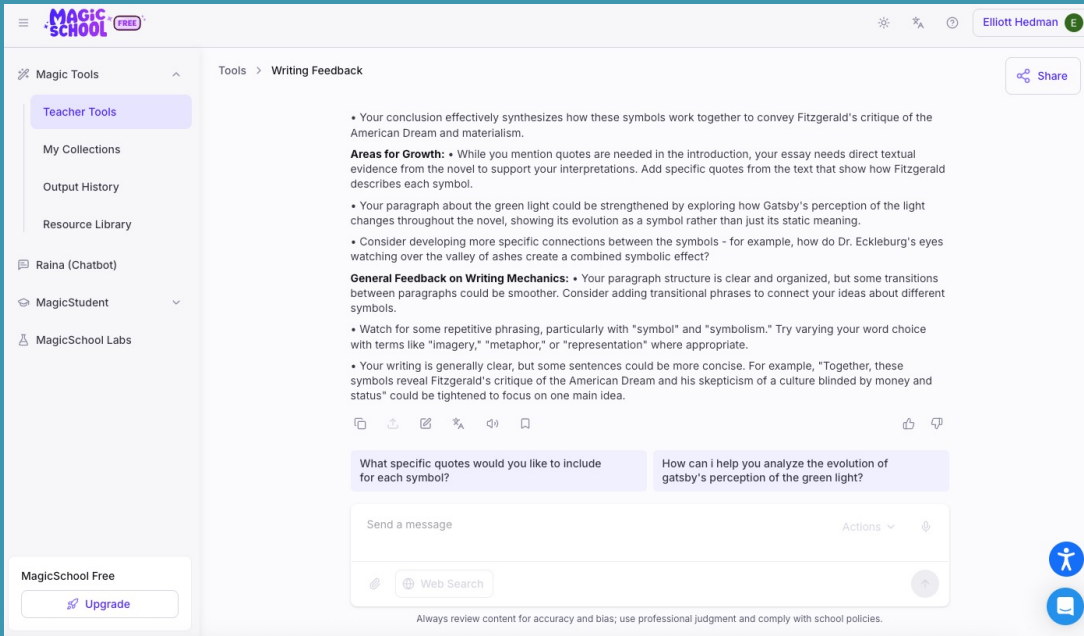
Founder / Lead Developer

- Build interactive reading app used by 20,000 students, especially for neurodiverse learners.
- Built AI Tutor Level Up – Adopted by an Oregon district and a small ELA curriculum.

My Design Philosophy

- Start with real student needs, not just pedagogy
- AI is as transformative as the Internet
- My Big Goal: Shape future of AI in education

The Challenge



AI Writing Feedback for Teachers



AI Writing Feedback for Students

Why It Matters

- Colleges face crisis of trust in AI
- AI = cheating narrative dominates
- Teachers overwhelmed with feedback demand
- Need: positive, student-centered use cases

Research Insights

- 20 teacher + 20 student interviews
- Teachers want reflection > polished papers
- Students want choice & agency

"This is the only AI app we feel comfortable showing to our students"

*– Kristy Cheshier,
Director of Technology
Estacada Schools*

Designing for Students

Students pick what
to improve

Level Up

×



Level 1

How do you want to
improve your paper?

Grab the reader's attention
and curiosity.

Make my argument feel
focused and impactful.

Make it sound like I know what
I am talking about.

Back

Designing for Students

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✕



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Emotionally Intelligent Feedback

Level Up

✕



Level 1

First Take

Reading this part, I felt a little unsure about what the writer was trying to say. I also felt like maybe they were going to talk more about the pictures and memories.

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Next

Designing for Students

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Immediate Feedback

Level Up

Level 1

Right now, I'm a little bit 🤔 confused.

- You mention pictures. 🖼️
- You mention being scared. 😨
- You mention fun. 😄

But... the connection is not crystal clear 💎 to me and my eyes. My brain says make it easier to see.

- How do these things **REALLY** make roller coasters the absolute 🏆 **BEST**?

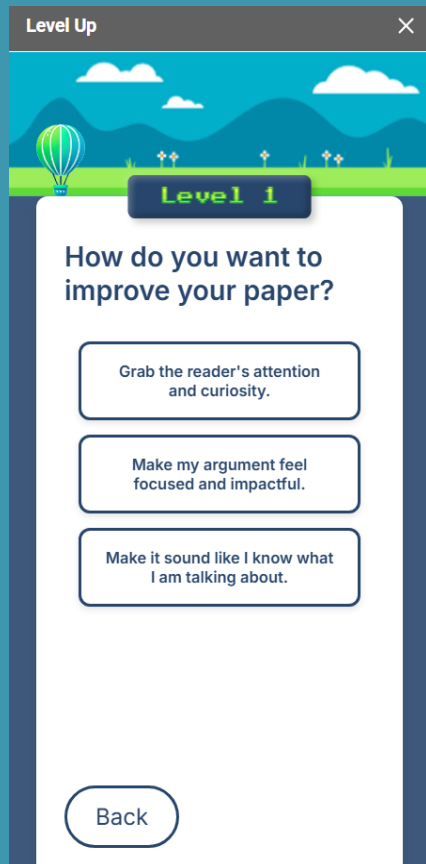
🤔 Hmmmm...

Skip

Check Work

Designing for Students

Students pick what to improve



Level Up

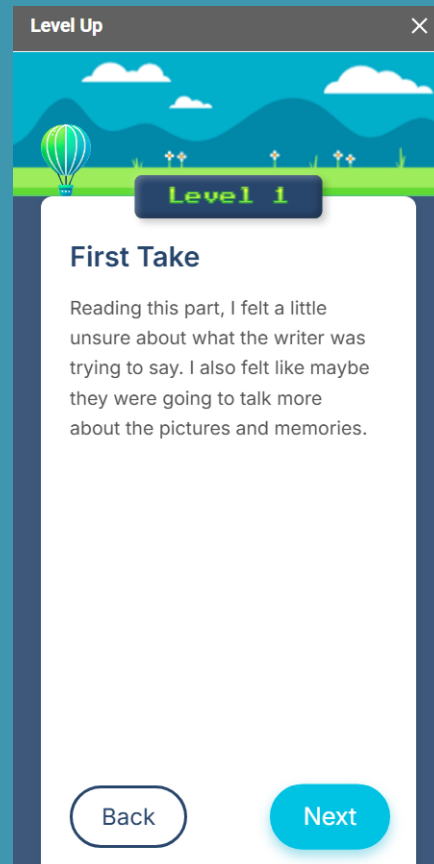
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Emotionally Intelligent Feedback



Level Up

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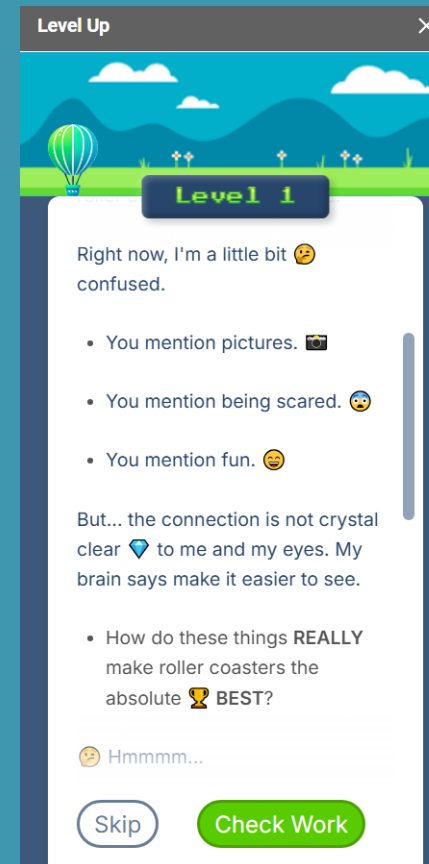
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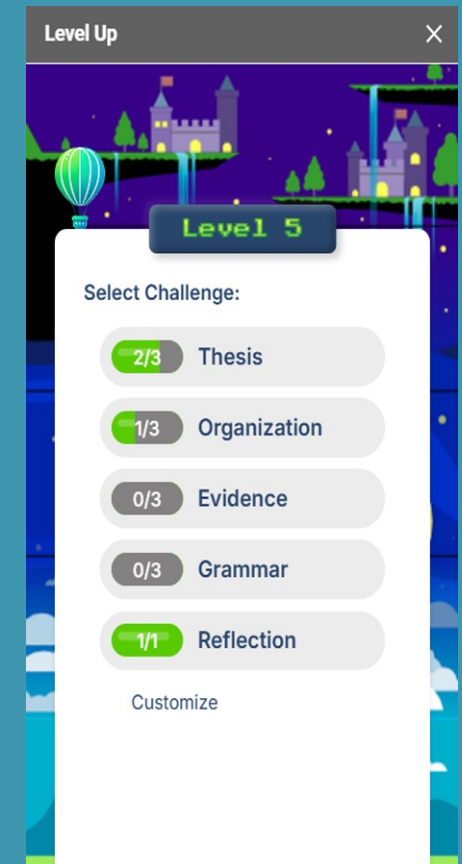
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Recognizing Student Effort and Progress



Level Up

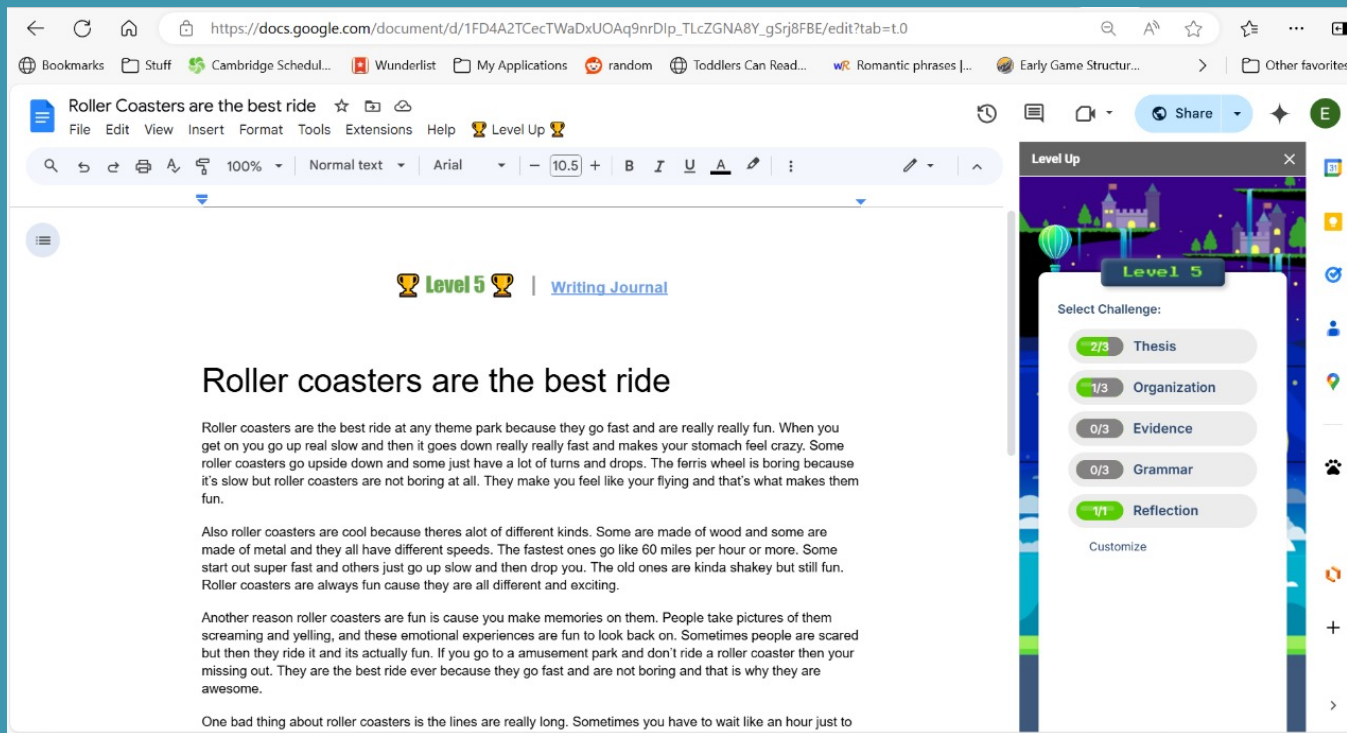
Level 5

Select Challenge:

- 2/3 Thesis
- 1/3 Organization
- 0/3 Evidence
- 0/3 Grammar
- 1/1 Reflection

Customize

AI works in Google Docs



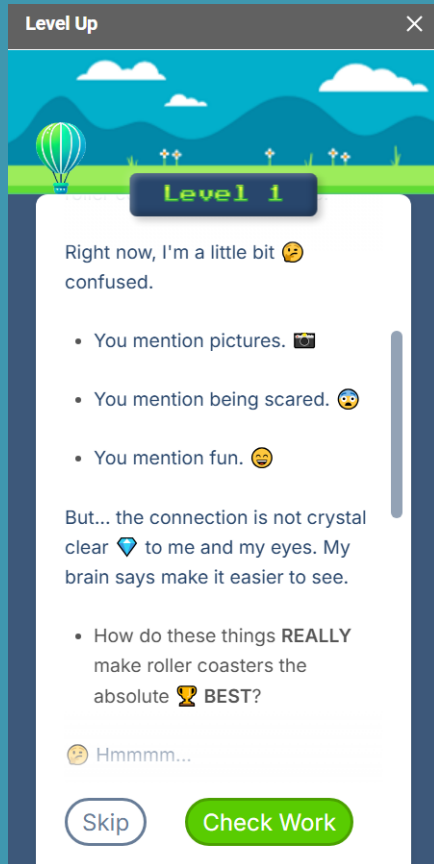
UX Challenges:

- Limited space and functionality
- Dual screens, controlling focus
- Lag between interactions

UX Strengths:

- AI Discussions around artifacts

Balancing AI Feedback



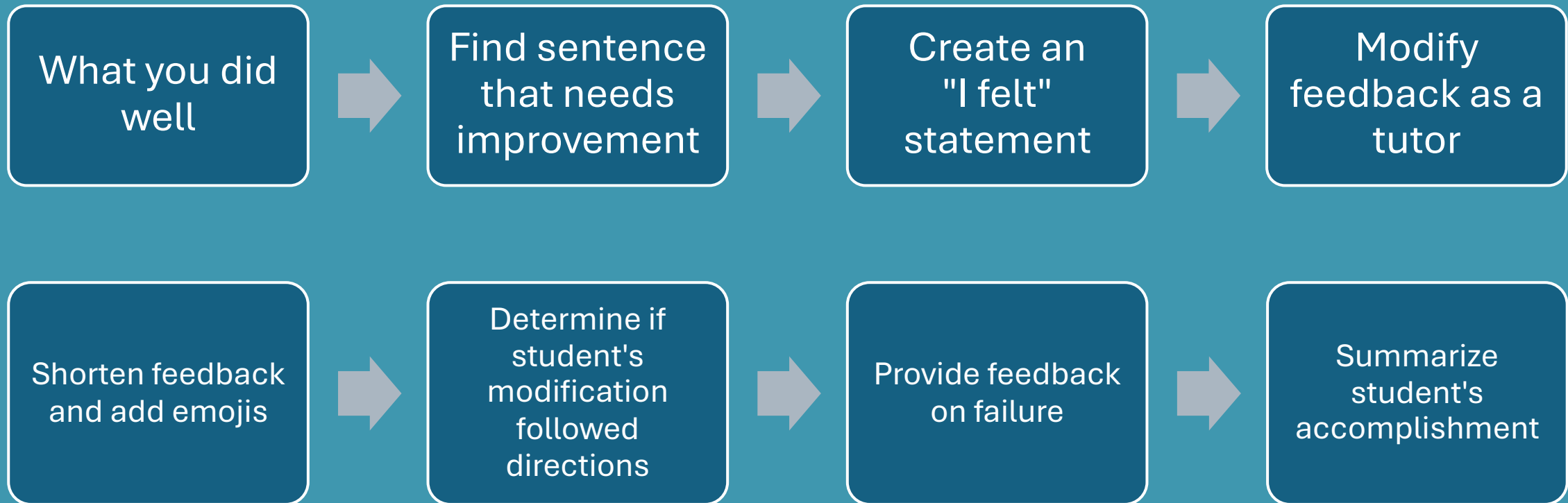
UX Challenges:

- A tutor talks too long, keep it above the fold.
- AI invests in student's goals too much
- Is direct scaffolding the best way?

UX Strengths:

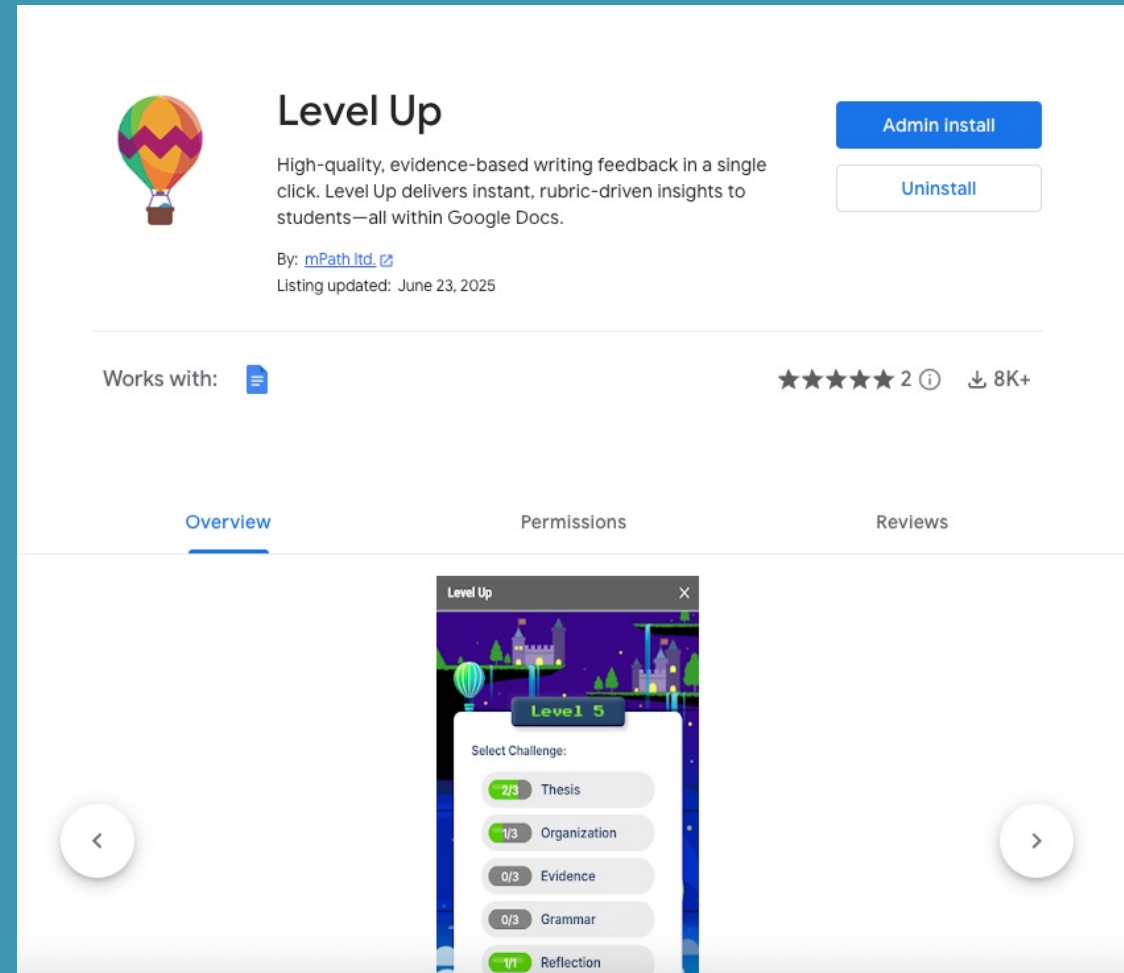
- Emoji's set a vibrant, fun tone.
- Clear challenge and flow
- Accessibility: feedback at student's actual level

Balancing AI Feedback



Impact So Far

- 8,000+ student users
- Oregon district deployment
- School Wide Curriculum partnership
- SXSWEdU – standing room only
- The74 Article → ASU/GSV interest



Lessons Learned

- Design for student jobs-to-be-done
- Empowerment > policing
- Trade offs matter:
 - Faster/Thoughtful
 - Delightful/Accurate
 - Student-Centered/Quick

Thank You / Q&A

- Elliott Hedman
- BuildEmpathy.com/levelup