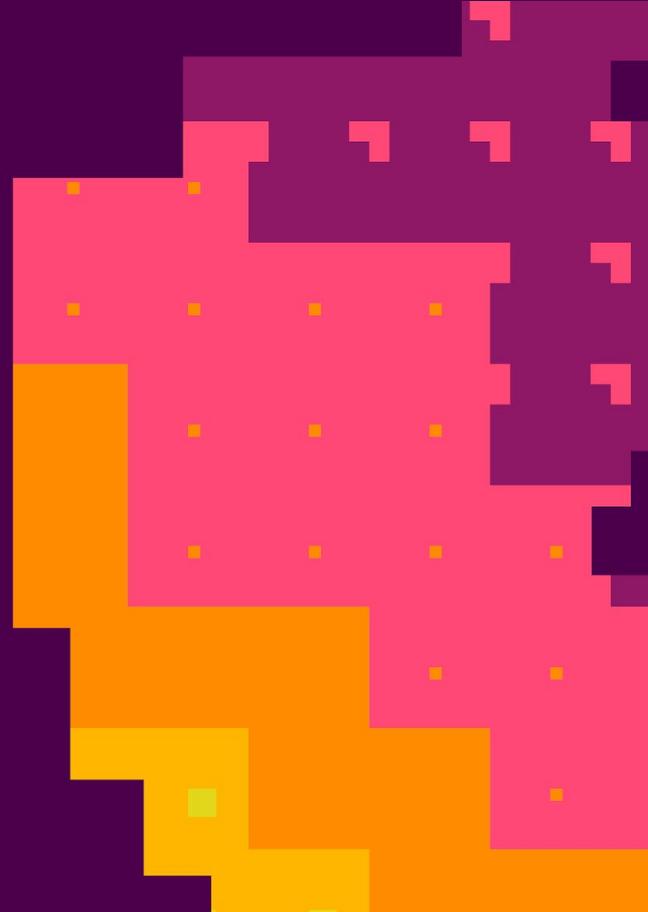


PENDOMONIUM 2023

**How to revolutionize
your product
development process
and build breakaway
products with
customer feedback**





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Houghton Mifflin
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61% of teachers report that their work is **always or often stressful**, compared to 30% of other U.S. workers



Innovative tools in education provide teachers with more precious time and alleviate a significant portion of their workload, allowing them to **focus more on actual teaching and connecting with students.**

HMH Mission

Elevating the Potential of All Learners

The learners of today will shape the world of tomorrow. HMH brings learning to countless students and teachers—transforming lives, supporting communities, and making our society more just and inclusive for all.

We offer a connected system of research-backed solutions, where assessment drives instruction and learning can be personalized to meet students' needs.



Our Impact

90% of U.S. K–12 schools use
HMH core, intervention, and
supplemental programs

50M students in 150
countries use HMH's
research-backed learning programs

1.9 average years of student
growth can be gained in one year by
using HMH intervention solutions



The Power of Customer Feedback



Why User Feedback?



Collecting and analyzing **user feedback** is vital for adaptation and innovation as it **provides a direct line to understanding user needs, preferences, and pain points.**



Inner Ring Rd

Inner Ring Rd

Ring Rd

Aldrich Park

Inner Ring Rd

Ring Rd

Inner Ring Rd

Inner Ring Rd

Ring Rd

Google





clover

SANDWICHES TODAY IS:

- 1. Turkey Fetta Salad
- 2. BBQ Salmon
- 3. The Sham

DRINKS \$3

- 1. Asian Pear Lemonade
- 2. Maple
- 3. Honey
- 4.

SIDES \$5

- 1. French Fries
- 2. Greek Coleslaw
- 3. Asian Curry Sauce
- 4. Parm. Bread Salad

(All days with Christmas!)

WASH IS NOT COMING
PLEASE DO OUTSIDE WASH

Trust Building
175 Federal St

clover
www.cloverfoodlab.com
7 Holyoke St
Cambridge, MA

every-
thing will
be different
tomorrow!



“Design for real life, launch to learn and stay responsive.” - Tom Hulme



You will get answers to the following questions at the end of this session:

→ What are effective strategies for collecting and analyzing customer feedback?

→ How can customer feedback be utilized to create an innovative product?



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Bonus: We will provide a template of our workshop

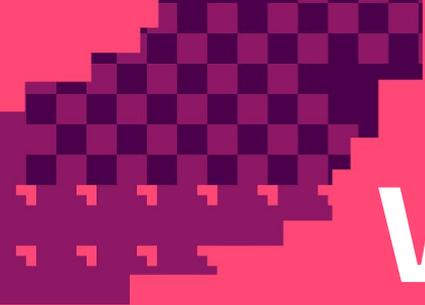




Analyze collected feedback for patterns and insights, guiding solution development

Test a preliminary version of the solution to confirm its effectiveness and viability.





What are effective strategies for collecting and analyzing customer feedback?



Collecting Customer Feedback

Strategies for gathering feedback from various sources

- ❑ UX Research: usability testing, user interviews, surveys, ethnographic research
- ❑ NPS - Net Promoter Score collected via Pendo
- ❑ NPS - Net Promoter Score collected via email
- ❑ Spontaneous Customer Feedback (via Pendo)
- ❑ Customer Support Interactions
- ❑ Social Media Monitoring (HMH Facebook group)
- ❑ Sales and Customer Success teams



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Collecting Customer Feedback via Pendo



The screenshot shows a user interface with two main sections: 'Needs Grading' and 'Overdue'. A 'Resource Center' modal is open, listing various resources like 'How-To Guides', 'Video Based Training', and 'Recommended Help Links'. A 'Feedback' button is highlighted in the modal. To the right, a 'Share Your Feedback' dialog is displayed, featuring a megaphone icon and a text input field for comments. The dialog includes a 'Submit Feedback' button and a 'Dismiss' link.

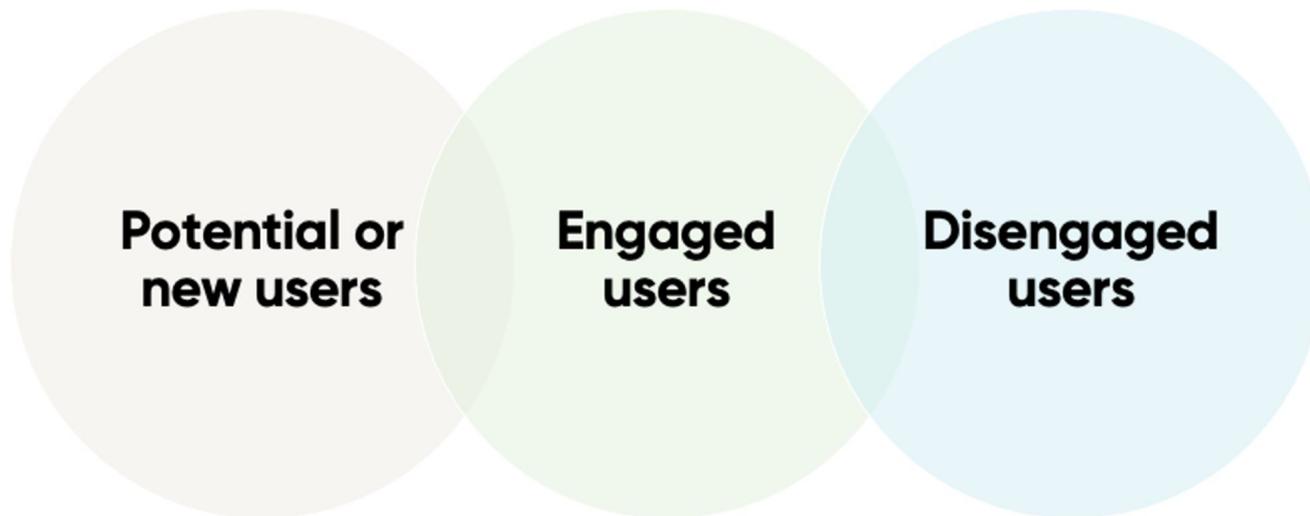
→ Spontaneous user feedback through Resource Center

The screenshot shows a course overview for 'Into Math & ¡Arriba las Matemáticas! Grades K-5'. It lists four topics with 'Start' buttons. Below the course overview, a survey is displayed with the question: 'On a scale of 0 to 10, how likely are you to recommend the HMH Ed platform to a friend or colleague?'. The scale shows a rating of 7. Below the scale is a text input field for the reason for the rating and a 'Submit' button.

→ Solicited user feedback through NPS



User Representation from Various Sources



- User research
- Sales and Customer Success teams

- Facebook Group
- Spontaneous feedback via Pendo
- NPS via Pendo

- NPS via email

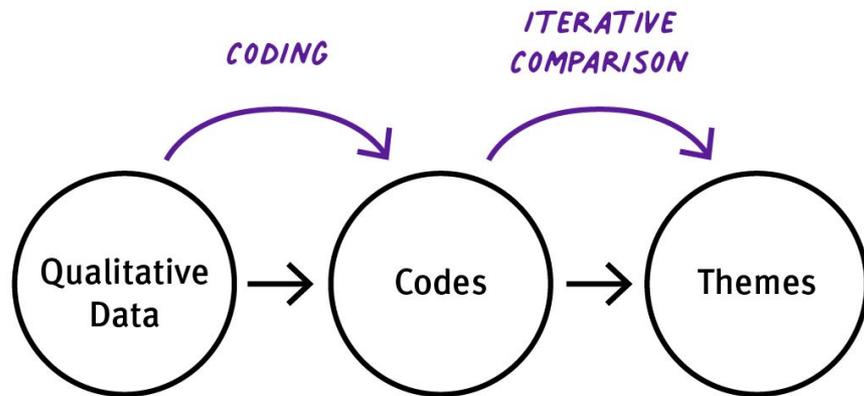


**How do you make
sense of all this
feedback?**

Analyzing and Interpreting Customer Feedback

- ❑ **Thematic analysis**
Identifying recurring themes and patterns within customer feedback to gain deeper insights into their preferences and concerns
- ❑ **Quantifying customer feedback**
This transforms subjective opinions into objective insights, guiding your decisions and actions towards delivering a product or service that better aligns with your customers' preferences and needs

Thematic Analysis



Analyzing and Interpreting Customer Feedback

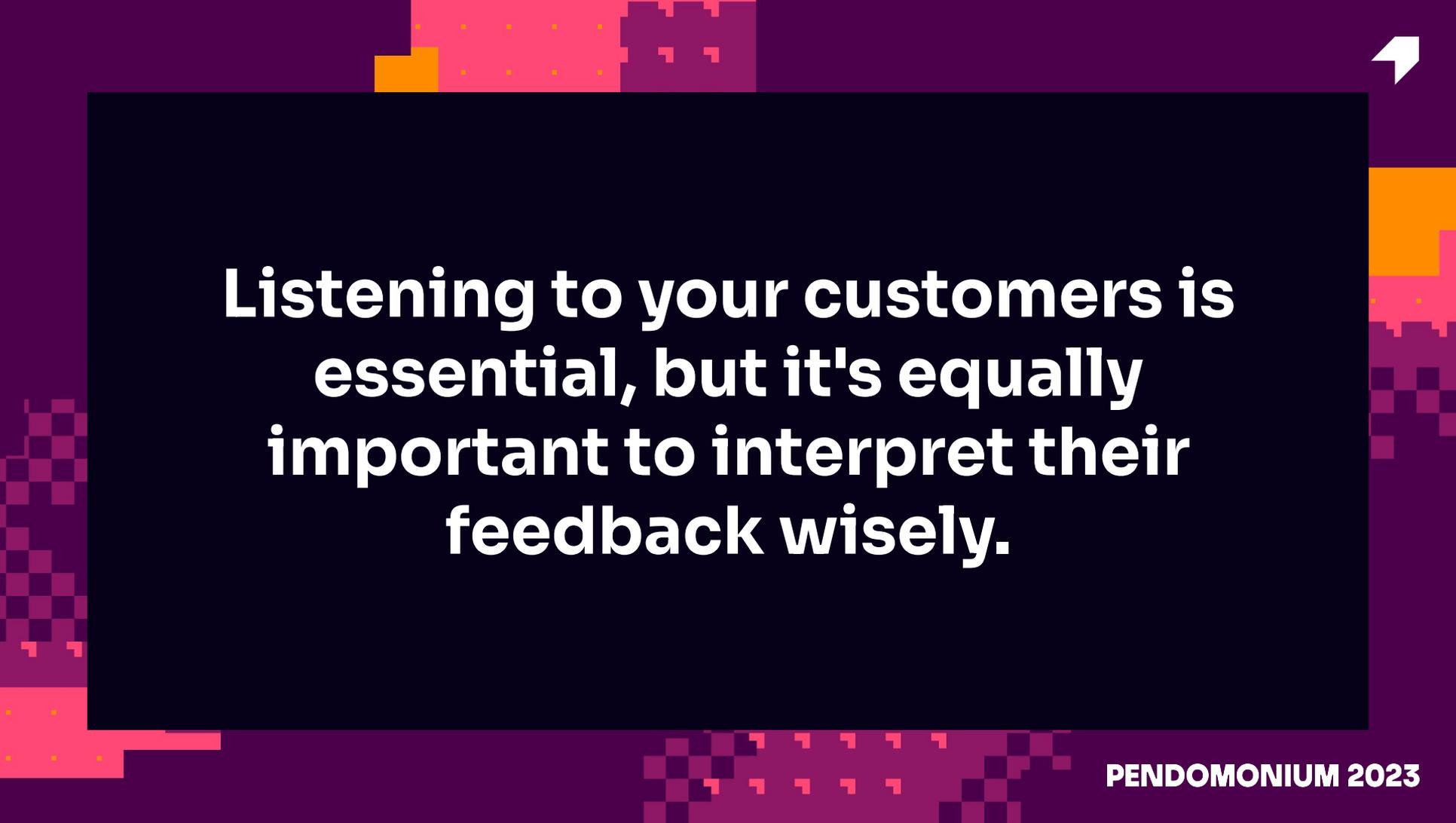


Qualitative Data

Codes

Themes

Date	Response	Product Area	Notes	User Request	notes
6/28/22 8:54	Please create a shortcut to the graphic organizers in each lesson.	HMH Resources	shortcut to the graphic organizers in lessons	Need to search/shortcut	shortcut for graphic organizers
6/29/22 13:21	We would appreciate a weekly scope and sequence for our Missouri Learning Standards. There are so many standards listed for each day's lesson. It's hard to wade through.	HMH Resources	list only related standards to that topic	Standards	too many standards for each day lesson
6/29/22 13:50	When I search for something I would like to sort by content, numerical order, alphabetical or even choice choices by lesson and module.	HMH Resources	when searching sort by content, numerical order, alphabetical; reduce choices by lesson and module	Search results order	sorting search results
6/30/22 15:44	We would appreciate a document or designation on the planning guide that correlates each lesson to the CC Standards.	HMH Resources	adding corresponding standards for each lesson on the planning guide	Standards	standards on the planning guide
6/30/22 15:44	We would appreciate a document or designation on the pacing guide/planning guide that states lesson to the exact common core standards.	HMH Resources	adding corresponding standards for each lesson on the planning guide	Standards	standards on the planning guide
7/1/22 11:30	Can there be an icon to link to the Writing Workshop Teacher's Guide in the same place as the Reading Workshop Teacher's Guide?	Content and HMH Resources	link to Writing Workshop in Teacher's Guide	Need to search/shortcut	shortcut to WW
7/1/22 15:01	Can you create a file where I can get to all the vocabulary words by each module instead of individually?	HMH Resources	vocab cards by each module	Vocab by each module	
7/1/22 15:53	I am creating my electronic file folder for daily lessons. When I open the module's daily lesson plans all components appear. I think that it will be very helpful if you add a "hide" action to the options to open, add to my lessons, and view details. Thank you!	HMH Resources	"hide" options for resources in lesson plans		
7/12/22 9:59	Would you consider adding a link to the daily slide show to the online teacher guides?	HMH Resources	link daily slide show to teacher's guide	Need to search/shortcut	links in TG
7/12/22 11:23	It would be very helpful if HMH could create Powerpoint Presentations that have all components for each lesson daily embedded in one place so that a teacher does not have to have so many tabs open and have to jump around. This daily access will make it more functional and easier for teachers to incorporate all portions of the curriculum.	HMH Resources	power point with all components for each lesson	Need to search/shortcut	all components in ppt for each day
7/12/22 13:29	Can lesson Slides be hyperlinked to each lesson in the digital teacher guide? Currently we just find them by searching "lesson slides" under All Resources	HMH Resources	link daily slide show to teacher's guide	Need to search/shortcut	links in TG
7/12/22 13:30	I'm in a HMH into Reading training room. We LOVE the PPTs ready for entire lessons! My group is wondering if they could be organized by module > week > lesson and possibly linked to the Teacher Guide!	Content and HMH Resources	organize power point by module, week lesson; link daily slides show to teacher's guide	Need to search/shortcut	all components in ppt for each day; links in TG
7/12/22 10:20	Hi can you provide a quicker or simpler way to access Read & Response.	HMH Resources	quicker way to access "Read & Response"	Need to search/shortcut	shortcut to read & response
7/13/22 13:41	when searching have it come up in module order for the places it finds	HMH Resources	order of search results not organized (organize based on module)	Search results order	
7/13/22 14:16	It would be nice for a hyper link in the digital teaching guide for the instructional routines. We could review the steps with our students.	HMH Resources	links in teacher's guide	Need to search/shortcut	links in TG
7/14/22 11:35	Can you provide standard specific assessments? We are standards based distinct and one question per standard on the assessments make it harder to grade.	Content and HMH Resources	standard specific assessments	Standards	standard specific assessments
7/15/22 15:47	How about the ability to look at the view of resources like the tiles you find on all the resources page	HMH Resources	tile view for resources		
7/17/22 11:34	I lose the editable weekly plans... why are they only available for two modules?	Content and HMH Resources	need editable daily lesson plans for other modules.		Editable lesson plans; more!
7/19/22 9:38	I would like to have the C3 standards aligned with my assessments in this program.	HMH Resources	C3 standards aligned with assessments	Standards	standard specific assessments
7/19/22 9:38	We need all of our assessments aligned to the C3 Standards.	HMH Resources	C3 standards aligned with assessments	Standards	standard specific assessments
7/19/22 9:39	I would like the Ancient Civilization series to have the C3 standards.	HMH Resources	C3 standards aligned with assessments	Standards	standard specific assessments
7/21/22 12:40	Please put grammar on the week at a glance in the workbook.	HMH Resources	grammar on the week at a glance	Need to search/shortcut	week at a glance
7/21/22 12:41	Is there any way to add grammar to the score and sequence of the teacher's guide? Thanks!	HMH Resources	add grammar to teacher's guide	Need to search/shortcut	TG
7/21/22 12:45	Please add Grammar Lessons to the Weekly Week at a Glance. It can be very confusing trying to find the Grammar skills for the week. The only way we know what the lessons are supposed to be is to look at the Assessment Options on the left side on the Week at a Glance. Very confusing!	HMH Resources	grammar on the week at a glance	Need to search/shortcut	week at a glance
7/22/22 10:59	Need printable 1/2r Start Right Readers in an obvious place, say to find. Thank you for your consideration.	HMH Resources	need new way to find printable Start Right Readers	Need to search/shortcut	shortcut to Start Right Readers
7/22/22 15:27	Can the Writing Anchor charts be put in a bundle so they can be grouped together.	HMH Resources	bundle together Writing Anchor charts	Need to search/shortcut	bundle
7/27/22 13:00	Would love for the standards to be attached to the premade lesson plans.	HMH Resources	standards with premade lesson plans	Standards	premade lesson plans
7/27/22 15:33	Please add the Standard to the teaching guides. How do I know which standard matches this lesson OR vice versa?	Content and HMH Resources	add standards to Teacher's Guide	Standards	TG
7/28/22 13:20	Instead of having the whole year of vocabulary cards together in one large pdf file, could you split them up into individual modules? It would be way more convenient. I had to manually separate the large file to make it happen.	HMH Resources	vocab cards by each module	Vocab by each module	
7/29/22 9:08	I prefer the older version of the All Resources search. I have found this new update requires significantly more time to try to find something. Previously, it was so much easier to look for resources. The search and sort at the top is not effective.	HMH Resources	old version of search was better	Need to search/shortcut	old version
7/31/22 10:25	I wish that the answer keys, or teacher's guide, were easier to access. Could there be a link on the teacher's guide that takes you to the answer pages for the printables and display and engage pages?	HMH Resources	hyperlinks in teacher's guide	Need to search/shortcut	answer keys



Listening to your customers is essential, but it's equally important to interpret their feedback wisely.

Analyzing and Interpreting Customer Feedback

A

"I need a way to archive and/or delete the assessments so I don't end up with a giant list of different versions of tests when I create my own editable assessments."

B

"Could the slides for the foundational skills and lesson be linked on the teacher guide. It takes so long to find them. They are all mixed up when you search for them."



The customers have pointed out a clear problem with the current system, which is the presence of outdated assessments that clutter the platform and might confuse teachers

→ Action here would be for the development team to implement a feature that allows teachers to delete or archive assessments they no longer need

A

"I need a way to archive and/or delete the assessments so I don't end up with a giant list of different versions of tests when I create my own editable assessments."



B

“Could the slides for the foundational skills and lesson be linked on the teacher guide. It takes so long to find them. They are all mixed up when you search for them.”

The feedback indicates a broader JTBD - teachers want to easily access and navigate through the various resources available in the curriculum materials

→ Action would be for the team to brainstorm more innovative ideas to enhance the platform's navigation in order to provide seamless experience when teachers planning their lessons



Customers are looking for solutions, not just features. Focus on solving their needs, not implementing their exact requests.



It is important to collect and analyze
user feedback...



It is important to collect and analyze
user feedback...

**but it is even more important to
package and share customer feedback
in a collaborative way** to empower
stakeholders and foster innovation in
product development

Transforming the User Feature Request Process





Post-Workshop Steps

Important Steps:

- Validate the solutions with users
- Continuously conduct user research while building the product



Monday morning arrives. As her students file into the classroom, Lucy logs back into the platform and opens her Playbook, which is cued up to show her today's bell-to-bell plan. Lucy clicks a "Ready to Go" button.



HMH Case Study



“I wish it was more user friendly. There are too many steps to find what you are looking for.”



“Please add all answer keys to the same document as the worksheets. It is hard to search, scroll through, and find answer keys to each worksheet. It takes way too much time.”



“Could you please make the “Discover” page the homepage? When I log in to HMH, it is usually to use the content to teach my students. [...] The book content for teaching purposes should be the homepage because that is what we are accessing daily.”

The screenshot shows the Ed platform interface. At the top, there are navigation tabs: Dashboard, My Classes, Discover (selected), Reports, and Teacher's Corner. Below this, there are two main sections: HMH Resources and My Stuff. The HMH Resources section features a search bar and a dropdown menu for program selection, currently set to '01 Into Math Florida: Grade 1'. A 'Standards Correlation' link is also present. The 'Browse By' section on the left includes options for Modules, Connected Solutions, Standards, All Resources, and My Favorites. The main content area displays a carousel of modules. Module 3 is highlighted as 'LAST VIEWED' and shows 'Properties of Operations' with a 'Teacher's Edition' and 'Student Edition' button. Below it, 'Lesson 1 Represent Addition in Any Order' is visible. Other modules shown include Module 4 (Apply the Addition and Subtraction Relationship), Module 5 (Understand Add To and Take From Problems), and Module 6 (Understand Put Together and Take Apart Problems). A 'View Resources' button is also present.



What is the underlying problem?

It's not landing on "Discover", it is getting a quick access to their teaching materials



What is the underlying problem?

It's not landing on "Discover", it is getting a quick access to their teaching materials

Goal: Make content access as smooth and efficient as possible



What is the underlying problem?

It's not landing on "Discover", it is getting a quick access to their teaching materials

Opportunity Area: Leveraging dashboard as a vital space to enhance user experience by focusing on efficient content access and personalization

Project Example: Dashboard Improvements



Further steps we took after getting user feedback via Pendo:

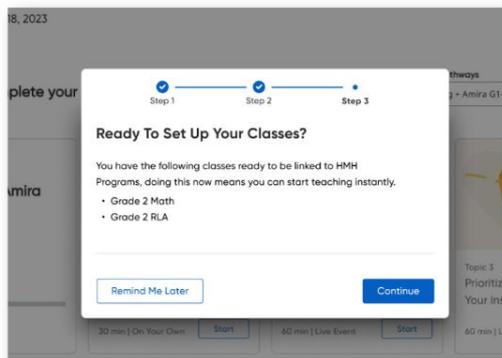
- User Research
- Analysis of Usage of Dashboard
- Concept Validation Testing
- Usability Testing



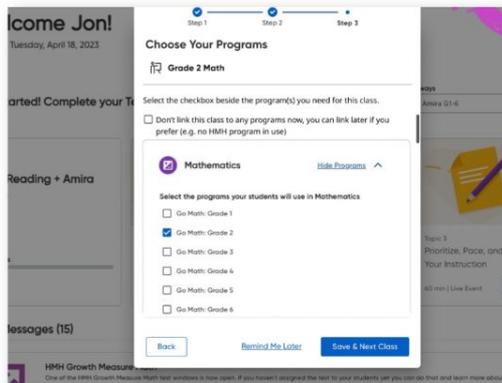
**It's our job to understand the
problems and formulate, and
test innovative comprehensive
solutions.**

Improvements to Onboarding

Upon their second log-in, teachers will now be prompted to associate their programs with their classes, increasing their awareness of which programs they have and improving their overall experience on Ed by ensuring they have access to the programs they use in their class

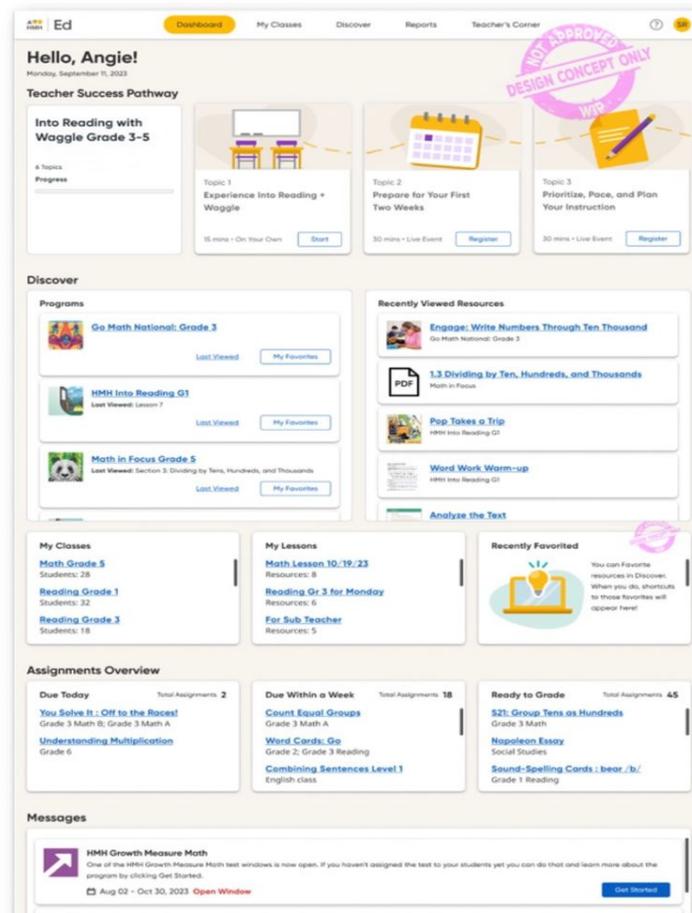


Teacher provided with a list of their classes set up by their admin



Teacher prompted to choose the program(s) for their class

Teacher Dashboard – introducing a "Discover" section with 5 new widgets



Increase Usage & Discoverability

Navigate with Ease

The new table of contents and lesson overviews makes it easier and faster for teachers to browse lessons and find resources throughout the entire year.

Favorite

Teachers can now favorite their resources to easily find later in their Favorite section

Grades K -12

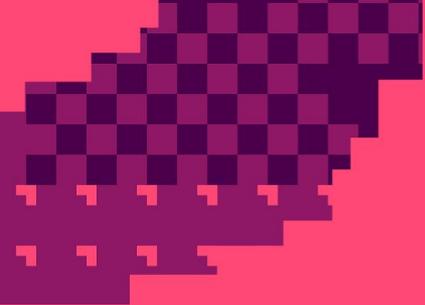
The image displays two screenshots of the Ed platform interface. The top screenshot shows the 'Favorite Resources' page, and the bottom screenshot shows the 'Updated Navigation' page.

Favorite Resources

The top screenshot shows the 'Favorite Resources' page. The navigation bar includes 'Dashboard', 'My Classes', 'Discover' (highlighted), 'Reports', and 'Teacher's Corner'. Below the navigation bar, there are tabs for 'HMH Resources' and 'My Stuff'. A 'Select a Program' dropdown menu is set to 'HMH Into Reading G2'. A search bar is labeled 'Search Program'. The main content area is divided into 'Browse By' and 'My Favorites (9)'. The 'Browse By' section includes options for 'Modules', 'Connected Solutions', 'Standards', 'All Resources', and 'My Favorites' (highlighted with a yellow box). The 'My Favorites' section displays two resource cards: 'Special Days, Special Dances' and 'How Living Things Help Each Other', each with a 'Show Related Resources' button and a 'Quick View' button.

Updated Navigation

The bottom screenshot shows the 'Updated Navigation' page. The navigation bar is the same as the top screenshot. Below the navigation bar, there are tabs for 'HMH Resources' and 'My Stuff'. A 'Back to HMH Into Reading G2' link is visible. A search bar is labeled 'Search Program'. The main content area is divided into 'Browse table of contents' and 'Lesson 1'. The 'Browse table of contents' section includes a list of modules and lessons, with 'Lesson 1' highlighted (yellow box). The 'Lesson 1' section includes a list of resources, with 'Introduction the Topic: Storytelling', 'Knowledge Map 4.1', and 'Ever After' highlighted (yellow boxes). A 'Filters' dropdown menu is visible. A context menu is open over the 'Add to My Favorites' button, showing options: 'Open', 'Assign', 'Add to My Lessons', 'View Details and Standards', and 'Add to My Favorites' (highlighted with a yellow box).



Wrap-up: Strategies for Building Breakaway Products



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Analyze collected feedback for patterns and insights, guiding solution development

Test a preliminary version of the solution to confirm its effectiveness and viability.





Thank you!

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PENDO MONIUM 2023