

A CURRICULUM-INTEGRATED CAREER EXPOSURE PLATFORM FOR ELEMENTARY STUDENTS

Chima Ozonwoye

New Jersey Institute of Technology

ozonwoyechima@gmail.com

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Executive Summary

This design specification outlines the architecture of *Curriculum Heroes*, a digital platform concept engineered for under-resourced communities. The product focuses specifically on elementary students to intervene during the critical formative years when career dreams are first defined. By integrating local role models directly into daily lessons, the design replaces isolated "career days" with sustained exposure that helps children imagine broader futures.

The report details the user-centered design of three distinct portals for students, teachers, and professionals. These high-fidelity prototypes were refined through GenderMag cognitive walkthroughs and validated in simulated classroom settings. Testing confirmed that age-appropriate features, such as the gamified Career Quest Map, effectively drive engagement while strictly aligning with district curriculum standards. This document serves as the technical blueprint for future implementation, defining the functional requirements necessary to bridge the exposure gap.

PROBLEM STATEMENT

Students in under-resourced communities may grow up with limited exposure to professionals who share their background. Importantly, this lack of visibility shapes how they imagine their futures including what is possible for them. Research from the STEM Education Journal (2021) reports that students in low-income schools are 40 percent less likely to personally know someone working in a professional or STEM career. When children rarely encounter relatable examples of success, they begin forming narrow assumptions about what is possible for someone like them. Bandura's work on self-efficacy shows that seeing similar others succeed strengthens a child's belief that they can succeed as well. As Bandura (1997) states, "Seeing people similar to oneself succeed by sustained effort raises observers' beliefs that they too possess the capabilities to master comparable activities." This means the absence of these models has real consequences on their motivation. Existing career-exposure programs do not resolve this early gap, instead focusing on specific career development or role models across the globe. Platforms such as ICouldBe and Defined Learning concentrate on high school students and build lessons around structured modules and formal tasks. For example, ICouldBe aims to connect high school students with mentors based off of career interests but more than 40% of students are unclear about their career interests meaning many students would be uninterested. Applications that are career mentor based lack engagement, future impact, and ease of widespread adoption. A retired elementary principal was interviewed who confirmed that career learning in elementary grades is not systematic at all. She noted that while a few schools host one-off career days, students experience these events as disconnected moments that never build a sustained sense of possibility. Without regular and relatable exposure, careers remain distant ideas instead of something children can picture themselves pursuing. The problem persists because younger

students rarely meet role models from their own communities in ways that feel personal or meaningful. According to our interview participant, early career awareness predominantly comes from the home or what children see on television, which means their understanding is shaped by whatever happens to be present in their immediate environment. Schools in cities like Newark focus heavily on test preparation, leaving little time for broader exploration of career paths. As a result, students rely on limited sources of information and seldom encounter examples of professionals who share their neighborhood, life experiences, or cultural background. The root cause we will address is the absence of early, community-based exposure to local professionals presented through engaging stories. Students respond well to narrative forms of learning and short, structured content, according to our interviewee's experience as both a teacher and district administrator. When local role models do appear in school settings, they are often presented in formal formats that feel distant, or in isolated events that do not connect to classroom learning. The gap is not simply the lack of professional content instead, there are no relatable stories connected to the child's own surroundings. Our design will focus on creating meaningful early exposure by introducing local Newark professionals through short, age-appropriate stories embedded in classroom activities. This responds directly to the cause identified in our research: students do not lack curiosity, they lack the opportunities to see people from their community who can expand their sense of what is possible. By centering local voices and presenting them in ways that fit the structure of elementary classrooms, the design aims to support children in imagining broader futures than the ones they currently see.

SOLUTION

Curriculum Heroes - Newark is a web-based platform that delivers curriculum content through local professionals, serving dual purposes: role model exposure and academic instruction. The platform integrates directly into classroom learning rather than existing as a supplementary career program. Professionals from students' communities deliver actual curriculum content through structured video lessons, serving dual purposes: role model exposure through brief personal connection and curriculum delivery by teaching actual lesson content. The structure consists of 1 minute for professional introduction and background connection, 3 minutes for core lesson content delivery, 1 minute for assignment introduction, and 1 minute for wrap-up. Key benefits include reduced teacher workload as professionals deliver lesson content while teachers facilitate rather than create content, student investment as students engage with both the professional's story and the academic content, and systematic integration as this is not an add-on but embedded in regular curriculum. The platform consists of three interconnected portals. The Student Portal allows students to access the platform through their school accounts, viewing professional videos scheduled by their teachers. The interface includes gamification elements to maintain engagement, such as a Career Quest Map showing professionals they have met and those yet to discover. Students complete assignments related to each professional's lesson, with multiple submission formats including text, drawing, and voice recording to accommodate different learning styles. The Teacher Portal enables teachers to browse a library of approved professional videos, filtered by grade level, subject area, and curriculum standards. The dashboard provides tools for scheduling videos, monitoring student progress, and previewing content before classroom presentation. Teachers can download lesson plans and supplementary materials to accompany each video. The Professional Portal allows community professionals to submit videos through a guided interface that ensures age-appropriate content aligned with

curriculum standards. The platform provides templates, teleprompter functionality, and real-time quality checks during recording. Professionals receive training on communicating with elementary students and connecting their expertise to specific learning objectives. All submitted content undergoes a multi-stage review process including automated screening for inappropriate content, administrative review for curriculum alignment, and teacher preview and rating system. The platform maintains version control for updated content and tracks engagement metrics to identify the most effective professional presentations.

APPLICATION SCREENS

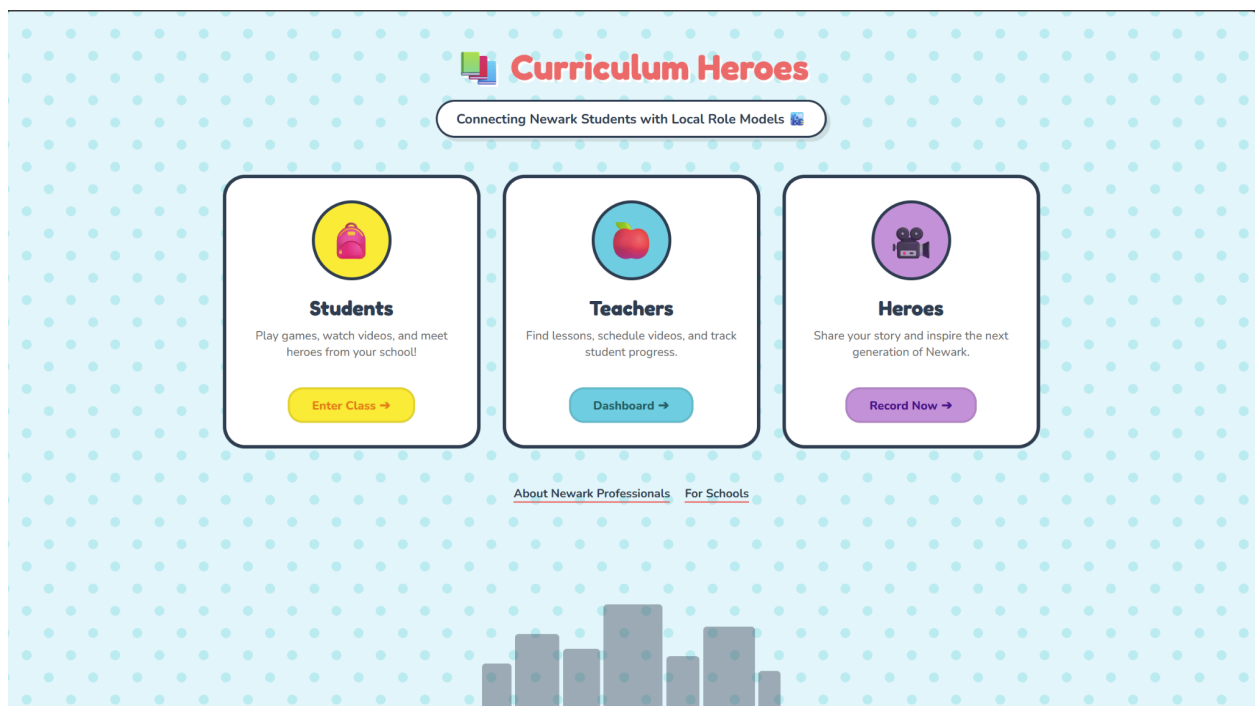


Figure 1: Landing Page - (Student, Teacher, and Professional)

The landing page serves as the entry point for all user types. The design immediately communicates the platform's local focus through Newark imagery and photos of community professionals. Three clearly labeled portal buttons direct users to their respective interfaces. The

page includes a brief mission statement: "Connecting Newark Students with Local Role Models Through Learning." Interactions include Student Portal button directing to student login, Teacher Portal button directing to teacher dashboard, Professional Portal button directing to professional onboarding, About Newark Professionals scrolling to showcase of participating professionals, and For Schools providing information for administrators.

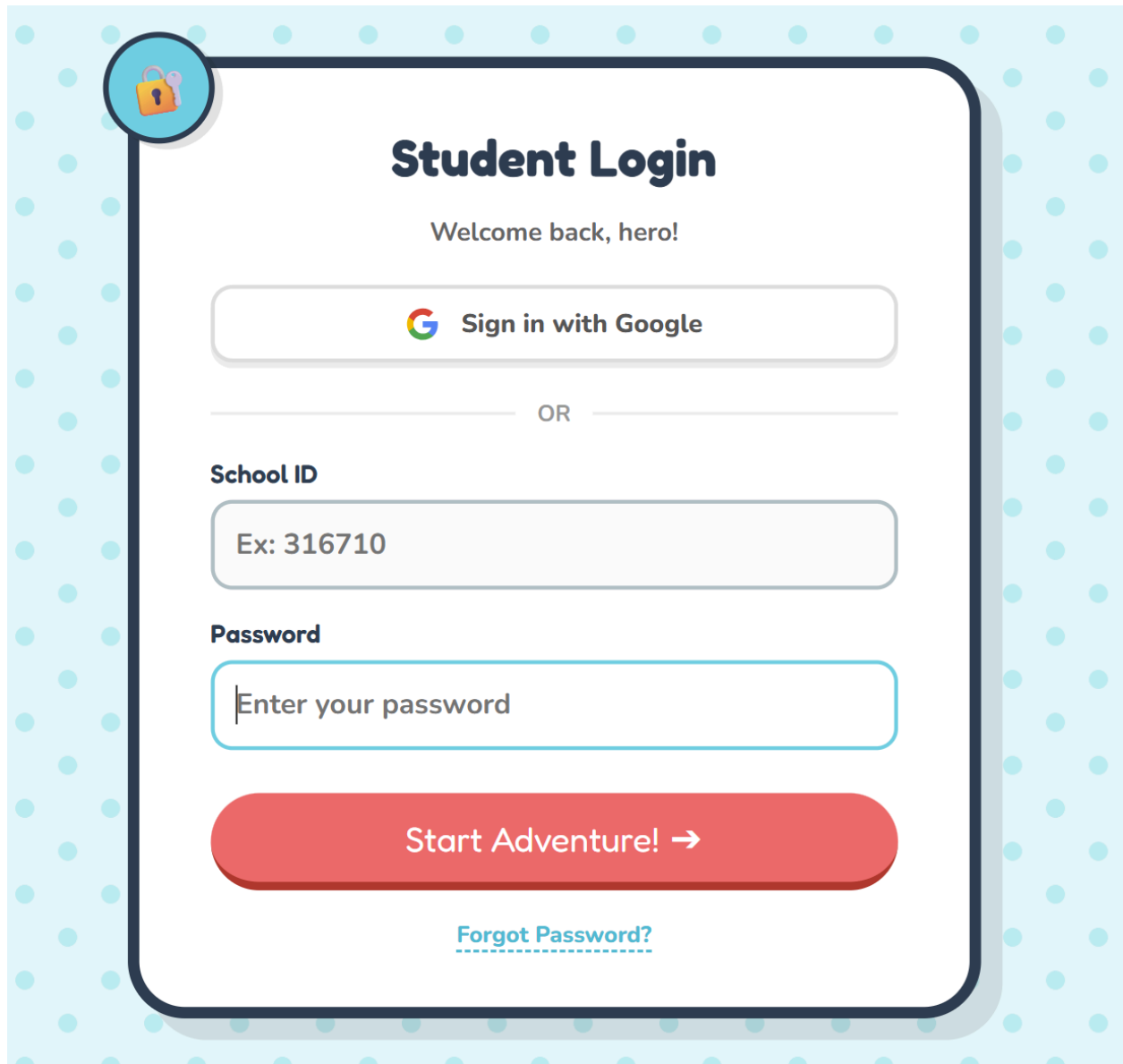
The image shows a 'Student Login' interface. At the top left, there is a circular icon containing a yellow padlock and a key. The title 'Student Login' is centered in a bold, dark blue font. Below the title, a welcome message 'Welcome back, hero!' is displayed. A large, light gray button with rounded corners features the Google logo and the text 'Sign in with Google'. Below this button, the word 'OR' is centered. The 'School ID' section includes a label and a text input field with the placeholder 'Ex: 316710'. The 'Password' section includes a label and a text input field with the placeholder 'Enter your password'. A prominent red button with rounded corners and white text says 'Start Adventure! →'. At the bottom, a blue link with dashed underlines reads 'Forgot Password?'. The entire login form is set against a light blue background with a pattern of small, darker blue dots.

Figure 2: Student Login - Student login screen with school ID field and picture password grid.

The student login uses simplified authentication appropriate for elementary students. Students

enter their school ID number and their password. The interface uses large, colorful buttons and clear visual feedback. Interactions include School ID field for numeric input with automatic formatting, Login button to validate credentials and proceed to dashboard, Forgot password to notify teacher through dashboard, and Help to show visual guide for login process.



Figure 3: Student Dashboard - Career Quest Map with professional cards, progress badges, and "Today's Lesson" prominently displayed. The student dashboard presents learning as an adventure. The Career Quest Map displays professionals as collectible cards, with completed lessons shown in color and future lessons grayed out. Today's scheduled lesson appears prominently at the top with a large "Start Learning" button. Interactions include Today's Lesson card opening video player, Career Quest Map showing visual progress through all available professionals, My Badges displaying earned achievements, Favorite Professionals showing

bookmarked videos for re-watching, and Class Activity showing recent completions by classmates with privacy protection.

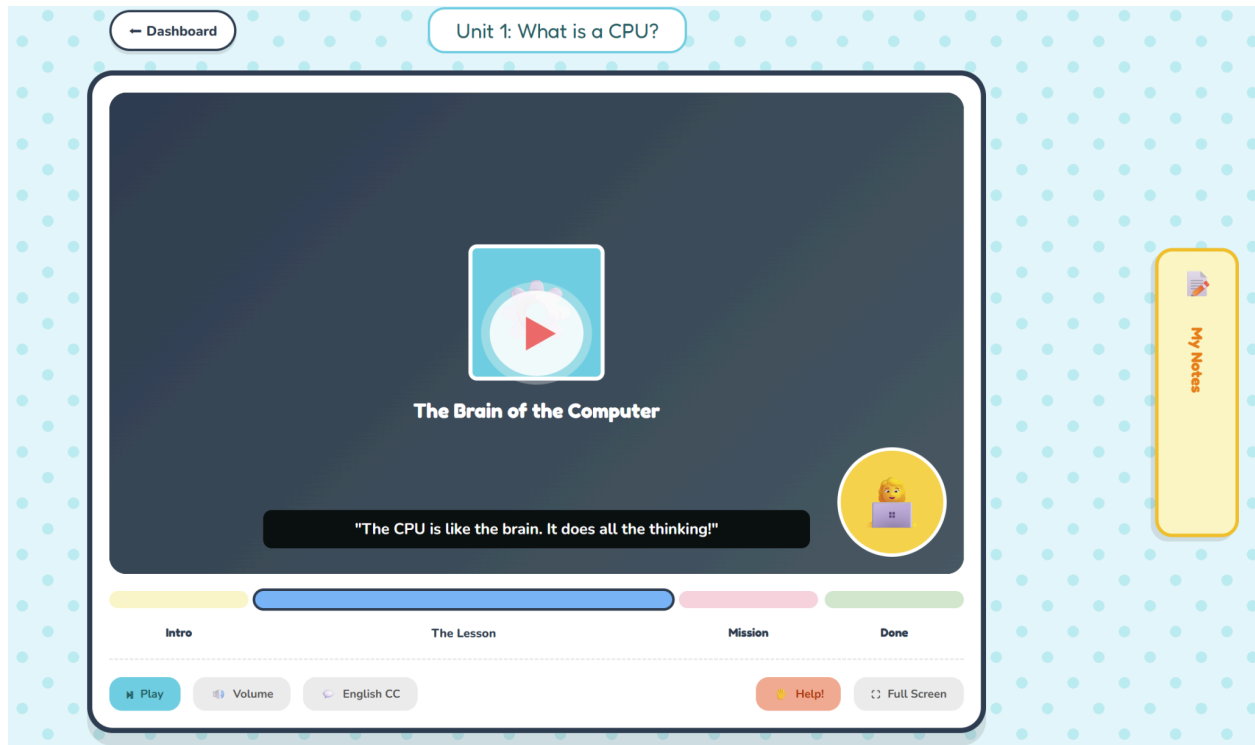


Figure 4: Video Player Interface - Video player showing professional video with timeline segments below showing Introduction. The video player occupies the full screen with minimal distractions. Below the video, a visual timeline shows the four segments of each professional's presentation. The timeline uses different colors for each segment: yellow for introduction, blue for lesson, pink for assignment, and green for wrap-up. Chapter markers allow navigation between sections. Interactions include Play/Pause button for central control of video playback, Timeline segments to click and jump to specific sections, Closed captions to toggle subtitles in English/Spanish, Take notes to open side panel for observations, Full screen to expand for classroom projection, and Help button to signal teacher that assistance is needed.



Figure 5: Teacher Dashboard - Teacher dashboard showing weekly schedule grid, student progress overview, and quick access to professional library. The teacher dashboard provides comprehensive classroom management in a clean, organized interface. The main view displays this week's scheduled videos with student completion rates. A sidebar shows real-time student activity and flags any students requesting help. Interactions include Schedule view showing weekly calendar for planning professional videos, Browse library for access to all approved professional content, Student progress for individual completion tracking, Preview mode to watch full videos before class, Download materials to access lesson plans and worksheets, and Generate reports to export data for administration.

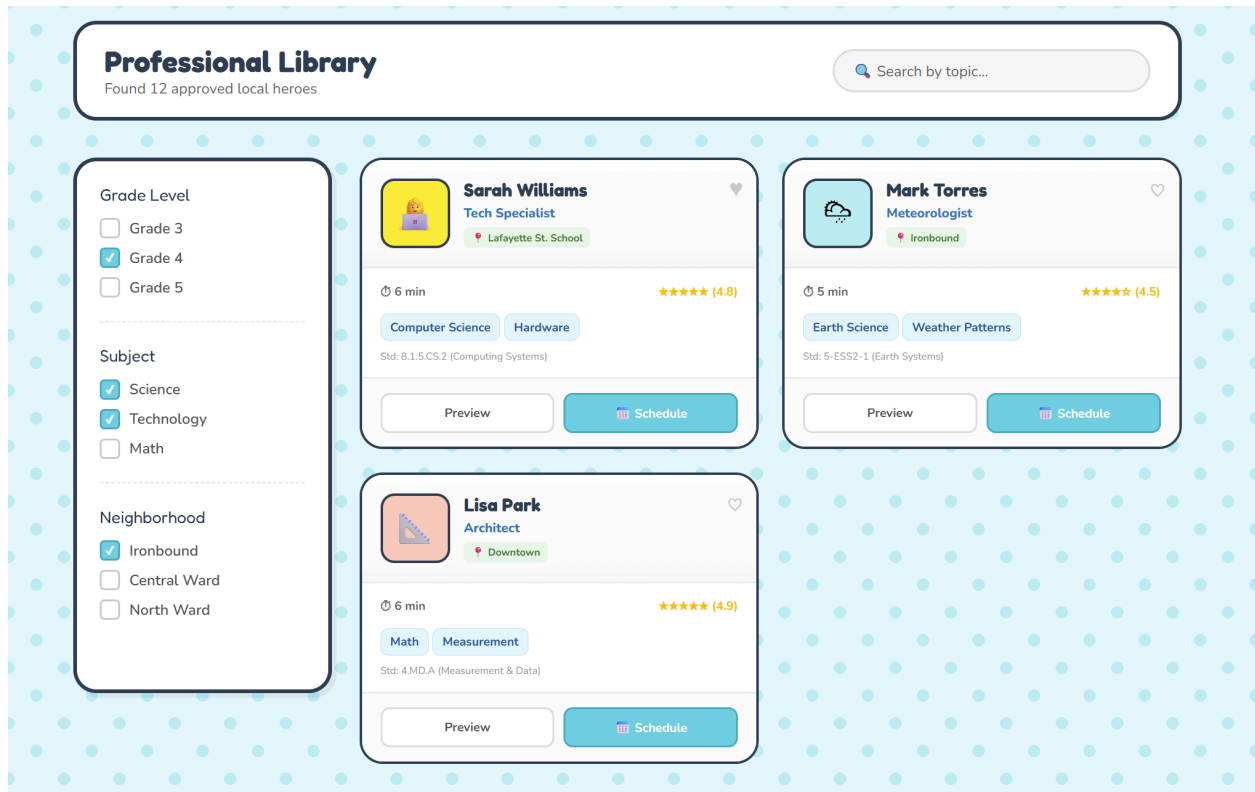


Figure 6: Professional Library - Grid of professional cards with filters on the left for grade level, subject, curriculum standard, and neighborhood. The professional library allows teachers to browse all approved content. Each professional card displays their photo, name, profession, neighborhood, curriculum topics covered, video duration, and average teacher rating. Filters help narrow results to specific needs. Interactions include Filter panel to refine by subject, grade, standard, and language, Professional card that expands to show preview, Preview video to watch 30-second highlight, Full preview for complete video in preview mode, Schedule to add to classroom calendar, Save to bookmark for later use, and Share to send to colleague.

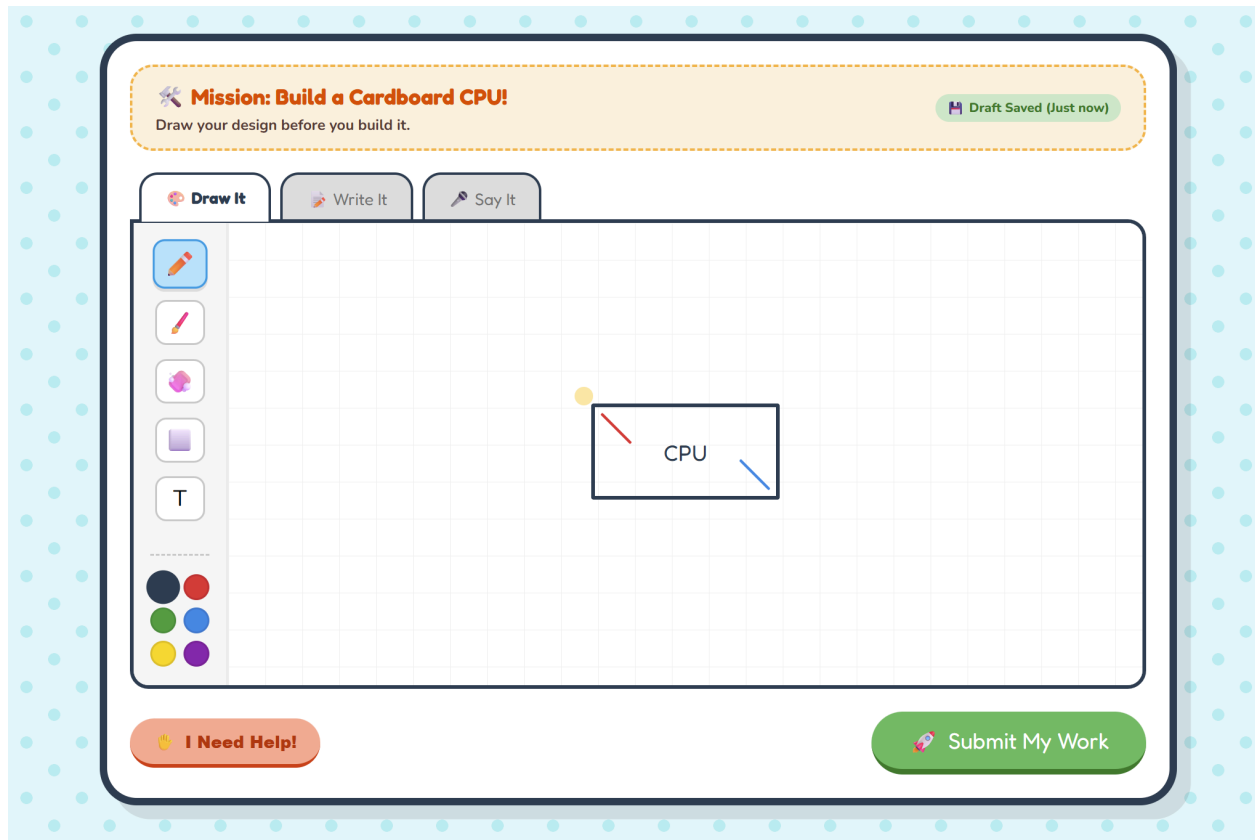


Figure 7: Assignment Interface - Panel displaying student assignment screen with drawing tools, text input, and voice recording options. Following each video, students complete related assignments. The interface supports multiple response types to accommodate different learning styles and abilities. Visual instructions guide students through each task. Interactions include Response type selector to toggle between text/drawing/audio, Drawing tools providing basic shapes, colors, and pencil, Text area as simple word processor for written responses, Record button for voice recording with visual feedback, Save draft with automatic saving every 30 seconds, Submit to send to teacher with confirmation, and Need help to flag for teacher attention.

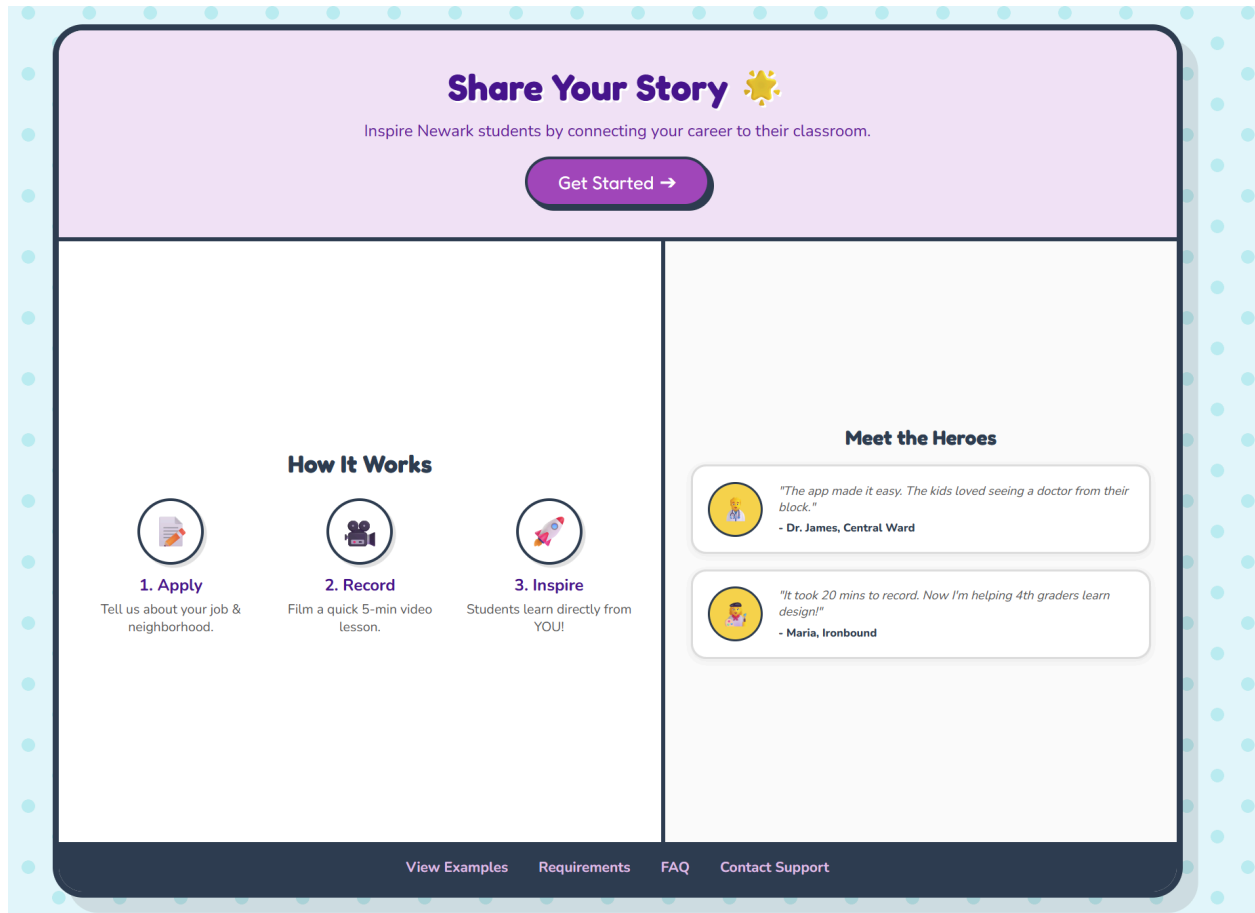


Figure 8: Professional Portal Landing - Professional welcome screen with "Share Your Story" headline and steps to participate. The professional portal welcomes community members with clear information about participation. The page outlines the process: apply, record, and inspire. Success stories from other Newark professionals provide encouragement and examples. Interactions include Get started button to begin application process, View examples showing sample videos from other professionals, Requirements providing detailed participation guidelines, FAQ covering common questions about the program, and Contact for support with technical issues.

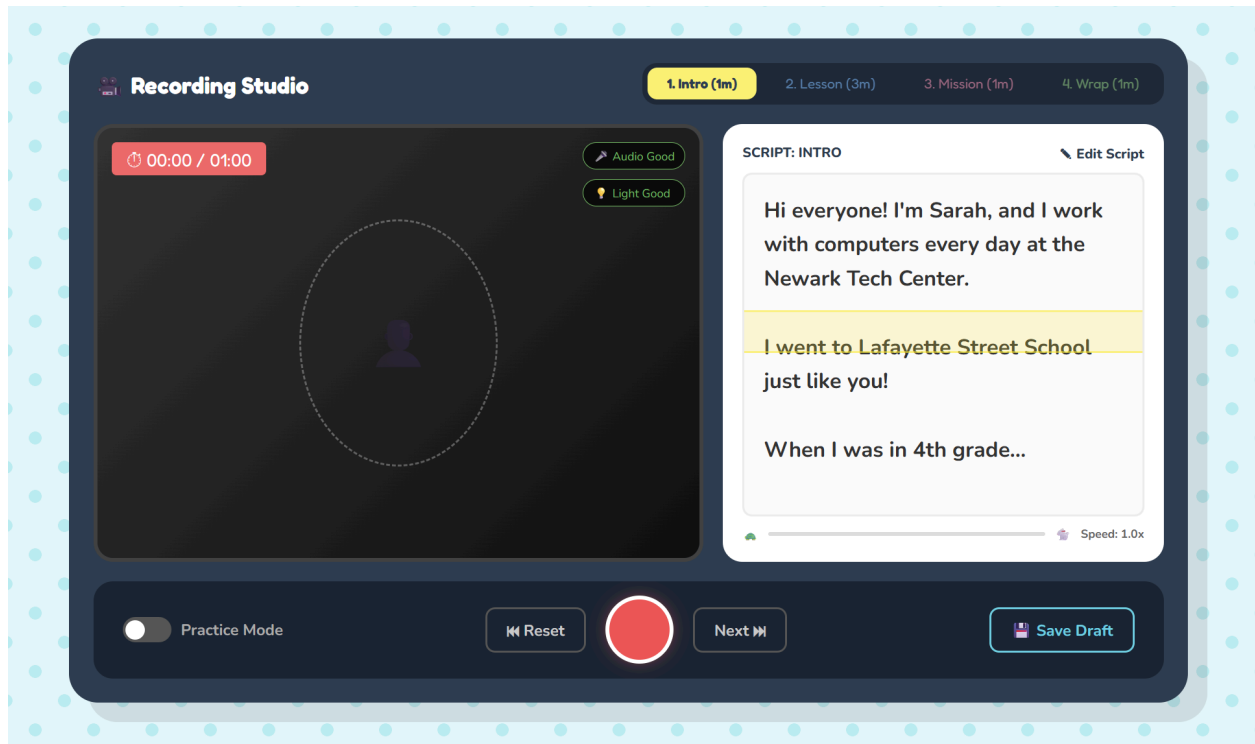


Figure 9: Professional Recording Interface - Showing recording screen with webcam preview, teleprompter, timer for each segment, and quality indicators. The recording interface guides professionals through creating their video. A teleprompter displays talking points for each segment. Visual timers show remaining time for each section. Quality indicators alert users to audio or lighting issues. Interactions include Record/Stop as main recording control with countdown, Section tabs to navigate between intro/lesson/assignment/wrap-up, Teleprompter with adjustable scrolling speed for script, Practice mode for unlimited rehearsal recordings, Quality check providing real-time feedback on audio/video, Preview to review recording before submission, Save draft to return and complete later, and Submit to send for review.

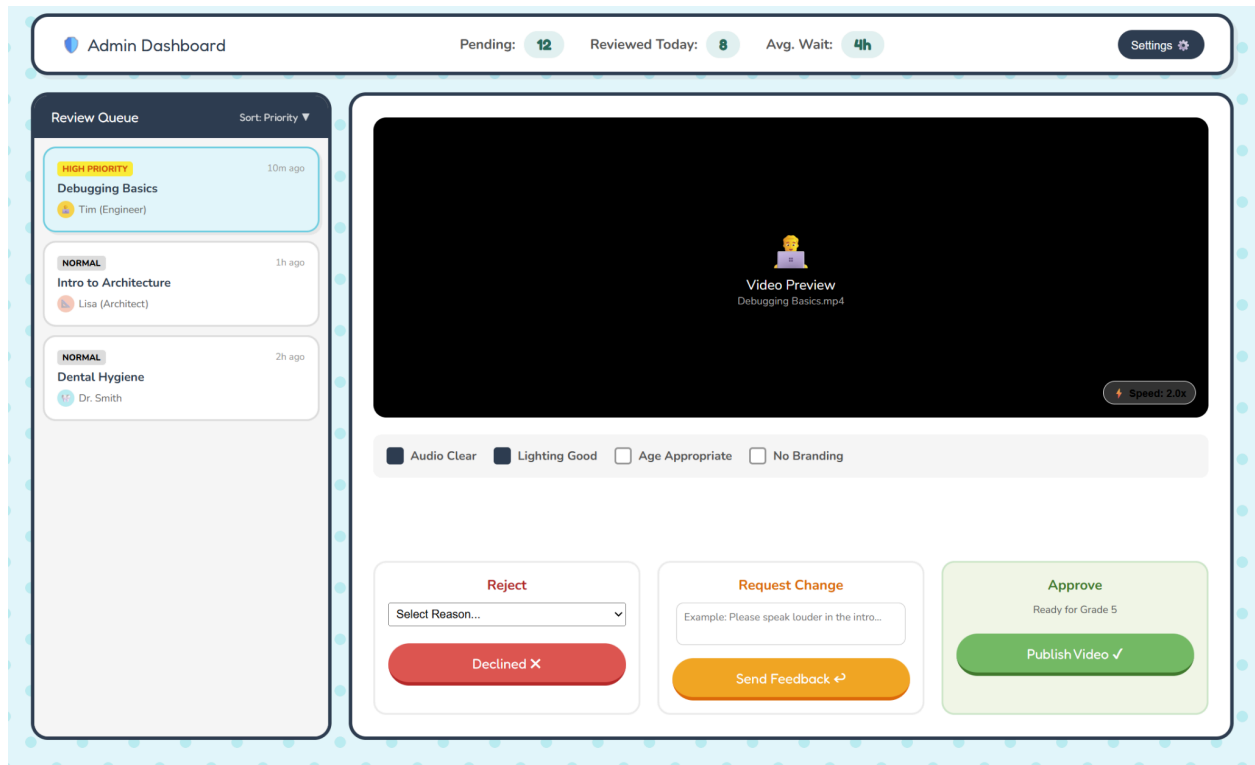


Figure 10: Admin Review Dashboard - Admin interface showing queue of pending videos with preview panel and approval actions. The administrative dashboard streamlines content moderation. Submitted videos appear in a priority queue based on curriculum needs. Administrators can preview videos at increased speed, check professional credentials, and provide feedback for revisions. Interactions include Review queue listing pending submissions, Quick preview with 2x speed playback option, Approve to accept and publish video, Request revision to send feedback to professional, Reject to decline with reason, Batch actions to process multiple submissions, and Analytics for platform usage statistics.

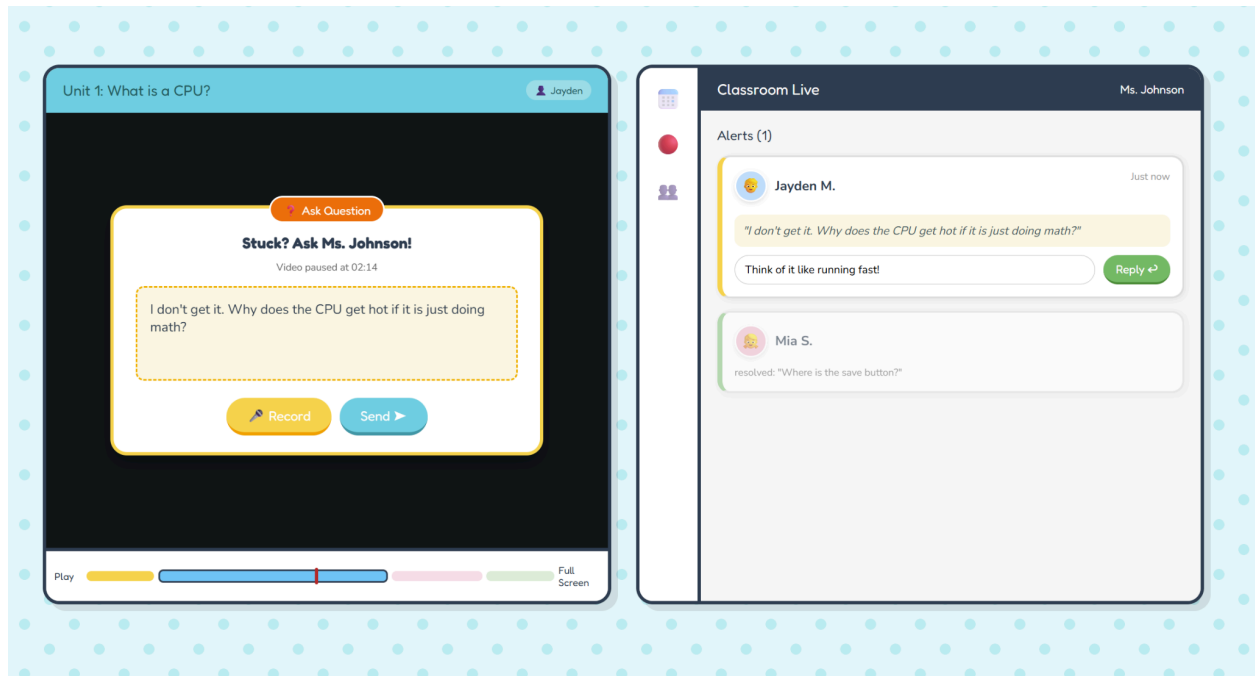


Figure 11: Teacher-Student Q&A Interface - Split-view interface displaying the student's video overlay on the left and the teacher's live alert dashboard on the right. The Q&A interface bridges the gap between pre-recorded content and real-time instruction. This feature directly addresses the pedagogical limitation that videos cannot respond to student confusion in the moment. On the student side, the interface allows learners to pause the lesson and immediately submit a question via text or voice. This prevents misconceptions from building up during the lesson. On the teacher side, the "Classroom Live" panel aggregates these inquiries in real-time. Teachers can send quick preset replies or type custom explanations without interrupting the entire class flow. Interactions include the Pause Overlay for immediate questioning, Voice Record for accessibility, and the Teacher Reply panel for instant feedback.

EVALUATION

We structured our evaluation to gather empirical evidence from representative users across all three stakeholder groups: teachers, students, and professionals.

Methodology

Teacher Evaluation targeted 2 participants recruited from Newark Public Schools to test the platform's classroom integration. Teachers were asked to preview and schedule a professional video for an upcoming lesson using the prototype. We employed a think-aloud protocol with screen recording to capture their navigation patterns, pain points, and suggestions. Key metrics included time to complete tasks, errors encountered, and satisfaction ratings.

Student Evaluation targeted 3 participants from grades 3-5 who interacted with the platform in a simulated classroom setting. They watched a professional video and completed the associated assignment. Observers noted attention span, navigation success, and engagement levels. We measured how long students maintained focus during the 6-minute videos and whether they successfully completed assignments independently.

Professional Evaluation targeted 2-3 Newark professionals from various fields who tested the content creation process. They completed onboarding and recorded an introduction segment using the guided interface. We conducted follow-up interviews to understand their comfort level with the technology and their understanding of age-appropriate communication.

Key Findings and Design Iterations

Following this methodology, we gathered critical feedback that moved our design from a theoretical concept to the current iteration.

1. Curriculum Alignment (Expert Feedback)

Initial feedback from Dr. Barbara Weller significantly altered our content strategy. She advised against general career exposure, suggesting instead that we "pick a content area" and map professionals to specific grade-level learning outcomes. She introduced the concept of a "Spotlight Scientist" linked to a standard, such as using an engineering professor to demonstrate "pushes and pulls" for a Kindergarten science unit. This feedback directly drove the design of the Professional Library (Figure 6), which now prioritizes filtering by grade level and specific subject standards rather than just job titles. Additionally, teachers in our evaluation consistently requested downloadable supplementary materials to accompany videos, leading us to add the "Download materials" feature to the Teacher Dashboard (Figure 5).

2. Structural Validation (Educator Interview)

To validate the problem of structural inequality, we interviewed a STEM educator from St. Benedict's Preparatory School. He highlighted that while Newark is approximately 60 percent Black, this diversity is rarely reflected in the educational authority figures students see. He noted that he did not have a Black teacher until he was a freshman in high school and only encountered three throughout his STEM education. This confirmed that the "Career Quest Map" is not just a gamified feature but a necessary tool for representation, as he emphasized the importance of kids seeing "they are not alone" and having "someone to actually go to." However, he also noted the solution seemed "a bit complex," suggesting we must keep the professional onboarding barrier low. This led to the simplified guided interface in the Professional Portal (Figure 9) with clear templates and real-time quality checks.

3. User Engagement (Student Testing)

Usability testing with elementary students confirmed our hypothesis regarding video length. Younger students struggled to maintain focus for a full 6 minutes without breaks. This finding necessitated the Visual Timeline feature (Figure 4), which breaks the video into distinct chapters (Introduction, Lesson, Assignment, Wrap-up) to provide structure and allow navigation between sections. Conversely, the gamification elements proved highly effective; students treated the professionals on the map like collectibles, with multiple students asking "how many more can I unlock?" This confirmed the Career Quest Map (Figure 3) as a strong driver for sustained engagement. We also observed that students required the multiple assignment submission formats (text, drawing, voice recording) as different learners gravitated toward different modalities based on the content type.

Success Metrics

Based on these findings, we have refined our success metrics for future testing to include:

- Percentage of videos watched to completion by grade level
- Teacher assessment of curriculum relevance on a 1-5 scale
- Professional success rate in creating approved content on first submission
- Student engagement time and assignment completion rates
- Student retention of professional information in follow-up assessments

We acknowledge that this evaluation represents initial validation with a limited sample size. Scaled implementation would require longitudinal studies tracking sustained engagement, learning outcomes over full academic terms, and the platform's impact on students' career awareness compared to control groups.

LIMITATIONS

There exist some limitations within this design for students specifically including the assumption that students will have access to technology such as an app or a website. This limitation would also apply to the school and teachers as well because the entire system relies on initial technology, specifically the students' access to technologies. Although this may be less common now with many schools giving out technology, it is still a possible limitation to the core product. For students with audio or visual impairments, the application may not work as intended because of the reliance on short videos. This limitation would also happen with limited English levels but multilingual options, closed captioning, and transcripts would relieve this issue to some degree. However, it still remains a limitation that the learning experience for the application is different for these students as opposed to others. The application limitation also exists for teachers in terms of integration across the board. Teachers may face difficulties integrating the design solution into their curriculum which they may already be used to. Without systematic support across the school, teachers may struggle to integrate the design as a whole. Another limitation exists towards the professionals that take part in the solution because there is a risk of a biased type of professional joining only. For example, only English speaking extroverted individuals which may be more likely with the existence of videos as well thus reducing diversity. Finally, there are also some larger problem limitations such as Newark as a whole may lack diversity in a certain type of profession thus reducing diversity in the app. Newark may also lack strong community partnerships for professionals to give back to the community through the app in this context. Some of these professionals may also not be capable of introducing a topic effectively to children, which is not a skill that is usually applicable to them. Additional limitations include content-skill alignment challenges as not all professionals can teach concepts at elementary level

effectively, professional expertise may not align with grade-level curriculum standards, and quality varies as a computer scientist might explain hardware poorly to 8-year-olds. Production and coordination barriers exist as recording quality lessons requires time, equipment, and multiple takes, coordinating professional availability with curriculum pacing is complex, and updating content when curriculum changes requires re-recording. Pedagogical limitations include that videos cannot respond to student confusion in real-time, one teaching style will not work for all learning differences, and professionals lack training in classroom management for assignment follow-through. Implementation contexts where this fails include no technology classrooms that cannot show videos without equipment, highly regulated curricula where some districts do not allow external content delivery, language-diverse classrooms where single-language videos exclude some students, and special education settings that may need individualized instruction videos cannot provide. Professional participation constraints include that finding professionals for every subject/unit is unrealistic, some topics have no clear professional connection such as basic arithmetic, and professional turnover means constantly finding replacements. Student engagement variables include that students may tune out during video portions, connection to professional diminishes if videos are reused year after year, and some students need interactive learning, not video-based instruction. Most effective for grades 3-5 with basic tech access, subjects with clear professional applications, schools with flexibility in content delivery methods, and communities with stable professional networks. Least effective for K-2 students needing hands-on learning, mandated curriculum with no flexibility, subjects requiring intensive student-teacher interaction, and extremely under-resourced schools without video capability.

GENDERMAG ANALYSIS

The GenderMag method evaluates software inclusiveness by analyzing how different cognitive styles interact with the interface. We conduct cognitive walkthroughs using three personas representing different points on the cognitive style spectrum.

Abi Persona Analysis - Process-Oriented Teacher

Background: Ms. Johnson teaches 3rd grade at a Newark elementary school. She has been teaching for 15 years and uses technology when required but prefers traditional methods. She wants to ensure any new tool is safe and appropriate before using it with her students.

Cognitive Facets:

- Motivation: Uses technology when it clearly benefits her students
- Information Processing: Comprehensive - needs to understand everything before proceeding
- Computer Self-Efficacy: Low to medium
- Risk Tolerance: Risk-averse
- Learning Style: Process-oriented, prefers step-by-step instructions

Scenario: First time using Curriculum Heroes to schedule a professional video for tomorrow's math lesson on fractions.

Subgoal 1: Access the Teacher Portal

Will Abi have formed this subgoal? Yes, she needs to find content for her lesson.

Action: Click "Teacher Portal" on landing page.

Will Abi know this action is available? Maybe. The three portal buttons are prominent, but she might hesitate about which one is correct for her.

Will Abi know this is the right action? Probably not immediately. She would prefer more explanation about what each portal contains before clicking.

Recommendation: Add descriptive text under each portal button explaining its purpose.

Subgoal 2: Find appropriate professional for fractions lesson

Action: Use filters in Professional Library.

Will Abi know this action is available? Yes, filters are visible on the left side.

Will Abi perform this action correctly? Possibly not. She might be overwhelmed by multiple filter options and unsure which combination will yield appropriate results.

Will Abi know she did the right thing? Not until she previews the full video, which requires multiple additional steps.

Recommendation: Add a "Recommended for your upcoming lessons" section that automatically suggests videos based on her curriculum calendar.

Subgoal 3: Preview the full video before showing to class

Action: Click professional card, then "Full Preview".

Will Abi perform this? Absolutely. As a risk-averse user, she will not show anything to students without complete review.

Time cost: This will take at least 6 minutes per video, potentially reviewing multiple videos.

Recommendation: Provide quick preview summaries and content warnings upfront to help Abi quickly eliminate inappropriate options.

Subgoal 4: Schedule video for class

Action: Click "Schedule" and select tomorrow's math period.

Will Abi complete this? Yes, but she will worry about technical failures.

Recommendation: Add a "Download for offline" option prominently displayed, with clear confirmation that the video is saved locally.

Tim Persona Analysis - Tech-Comfortable Professional

Background: Marcus is a software engineer who volunteers regularly in Newark schools. He is excited to contribute to Curriculum Heroes and comfortable with technology.

Cognitive Facets:

- Motivation: Intrinsic motivation to give back to community
- Information Processing: Selective - skims instructions
- Computer Self-Efficacy: High
- Risk Tolerance: Risk-tolerant
- Learning Style: Tinkering, learns by doing

Scenario: Recording his first video about debugging for 5th graders.

Subgoal 1: Start recording quickly

Action: Click "Get Started" on Professional Portal.

Will Tim form this subgoal? Yes, he wants to begin immediately.

Will Tim know this action is available? Yes, the button is prominent.

Will Tim read the guidelines first? No, he will likely skip instructions and dive into recording.

Problem: Tim might miss important guidelines about age-appropriate language and curriculum alignment.

Recommendation: Embed key requirements directly in the recording interface rather than in separate documentation.

Subgoal 2: Record video segment

Action: Use recording interface.

Will Tim be satisfied? Initially yes, but he might become frustrated by the rigid time constraints.

The interface shows he has exactly 3 minutes for the lesson portion. As someone who prefers flexibility, he might want to adjust this based on content complexity.

Recommendation: Allow "Extended lesson" option for complex topics while showing recommended times.

Subgoal 3: Use practice mode

Will Tim use this feature? Unlikely initially. As a risk-tolerant user, he will probably try to record in one take.

After potential rejection: Tim would then discover practice mode and appreciate being able to experiment.

Recommendation: Make practice mode more prominent and frame it as "Test your setup" rather than practice.

Pat Persona Analysis - Elementary Student

Background: Jayden is a 4th grade student in Newark who uses YouTube and plays Roblox at home. He reads at grade level and is curious but easily distracted.

Cognitive Facets:

- Motivation: External motivation by rewards and peer comparison
- Information Processing: Selective based on interest
- Computer Self-Efficacy: Medium (comfortable with entertainment technology)

- Risk Tolerance: Moderate
- Learning Style: Visual learner, needs immediate feedback

Scenario: Watching today's professional video and completing the assignment.

Subgoal 1: Login to platform

Action: Enter school ID and picture password.

Will Pat complete this successfully? Probably, the picture password is age-appropriate.

Problem: If Pat forgets his picture sequence, he cannot proceed independently.

Recommendation: Add a "Hint" option that shows the category of images chosen.

Subgoal 2: Start today's video

Action: Click "Today's Lesson" on dashboard.

Will Pat know to do this? Yes, the prominent placement and size make it obvious.

Will Pat be motivated? Yes, especially if he can see classmates have already completed it.

Subgoal 3: Watch complete video

Interface: Video player with timeline segments.

Will Pat watch all 6 minutes? Challenging. The timeline helps by showing progress, but 6 minutes is long for a 4th grader.

Will Pat understand the structure? The color-coded timeline is helpful, but he might not realize he can click segments to navigate.

Recommendation: Add interactive elements between segments.

Subgoal 4: Complete assignment

Interface: Assignment screen.

Will Pat know how to respond? The multiple format options are good for different preferences.

Problem: Pat might choose drawing just because it seems more fun, even if writing would better demonstrate understanding.

Recommendation: Provide guidance on which format to choose based on the assignment type.

Gender-Inclusiveness Recommendations

Based on our analysis across personas:

Multiple Learning Pathways:

- Provide both quick-start and guided setup
- Offer video tutorials and written documentation
- Allow flexibility within structure

Building Confidence:

- Add confirmation messages at each step
- Provide undo/redo functionality
- Create practice environments before real use
- Show clear success indicators

Reducing Cognitive Load:

- Progressive disclosure of features
- Clear visual hierarchy
- Consistent navigation patterns

- Minimal required fields

Supporting Different Risk Tolerances:

- Preview everything before committing
- Download options for offline use
- Clear content warnings and age-appropriateness indicators
- Save draft functionality everywhere

Flexible Engagement:

- Allow pausing and resuming videos
- Provide transcripts alongside videos
- Multiple assignment response formats
- Adjustable playback speeds

Specific Implementation Changes:

For Abi (Risk-averse users):

- Add Safe Mode that only shows pre-screened highly-rated content
- Provide detailed preview information before full video viewing
- Create teacher community reviews and comments
- Add explicit curriculum standard tags on every video

For Tim (Risk-tolerant users):

- Enable batch processing of video segments
- Provide keyboard shortcuts for power users
- Allow custom modifications within guidelines
- Show advanced features progressively

For Pat (Young students):

- Implement micro-interactions and rewards throughout video
- Add progress celebration animations
- Create peer comparison features (carefully designed to avoid negative competition)
- Provide immediate feedback on all actions

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