Design System Case Study

Nemo for Pearson

by John Walker

Project Brief

Digital accessibility goes beyond compliance, aiming to deliver inclusive learning experiences for all users.

At Pearson, I led the creation of an accessible global Design System that adheres to corporate visual standards and can be extended across multiple product lines.

My Role: As the Accessibility Lead, I consulted with the UI/UX team to ensure visual designs conformed to WCAG 2.2 guidelines.

I authored code-level engineering specs, mentored eight developers in accessibility best practices, and conducted QA for efficient implementation throughout the development lifecycle.

I also ensured ongoing conformance through design reviews and code audits.

Project Goals

- **Establish and migrate teams** to a new Design System that reconceptualizes e-learning products in a modern, best-in-class, and accessible evolution
- **Mitigate legal risks** associated with the European Accessibility Act with robust accessibility processes and frameworks
- **Introduce scalable, reusable components** to modernize product designs
- **Enable consistent accessibility practices** across teams

Project Opportunities

- **Mitigate pain points** for disabled customers using educational software

- **Optimize content and structural elements** for seamless screen reader navigation

- **Offer users greater control** over their learning experience

- **Provide real-time notifications** so disabled customers can access and react to updated content

My Process

Figma

We use one Figma Kanban board to monitor sprint progress and another to track the progress of components being added to Nemo.

View Figma Scrum Board ⬀
View Figma Component Board ⬀

Storybook

Explore built Nemo components in Nemo's dedicated Storybook.

View Storybook ⬀

SharePoint

Read more project documentation on Nemo's dedicated SharePoint.

View SharePoint ⬀

Founded an accessible Design System

- **Produced simplified components** that over 20 product teams could restyle as needed

- **Incorporated multiple user modalities** using Figma's advanced functionalities

- **Created detailed, code-level** engineering specs

- **Performed QA** to ensure efficient, effective implementation

- **Compiled component specifications** into a comprehensive design and development guide, supporting accessibility beyond the Design System's scope.

- **Tools and Technology** *Design:* Figma, FigJam. *Accessibility Testing:* Axe DevTools, VoiceOver, JAWS, NVDA, ZoomText. *Development/collaboration:* Jira, Storybook, Microsoft 365

Introducing Nemo

Nemo Design System

The Nemo Design System organizes components into foundations, atoms, molecules, and organisms, ensuring scalability and modularity.

Foundations	Atoms	Molecules	Organisms	Techniques

Foundations
- Colors
- Typography
- Grids and breakpoints
- Value tokens for spacing, radius, stroke, etc.

Atoms
- Buttons
- Filters
- Radios, checkboxes, switches
- Tags
- Tooltips
- Alerts

Molecules
- Search Fields
- Multi-functional components
- Dropdown selectors
- Card variations
- Modals
- Carousels
- Tables

Organisms
- Custom widgets
- Complex forms
- Headers
- Audio & video players
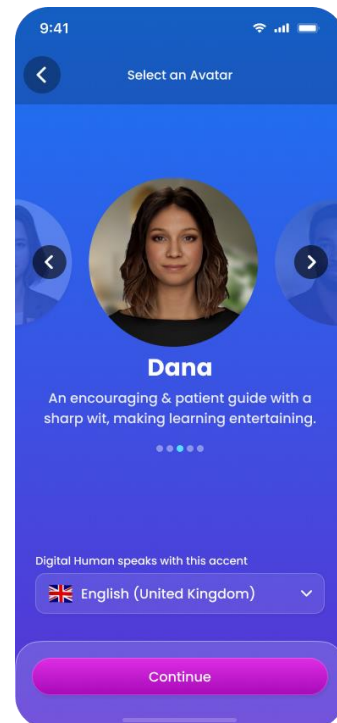- Highly customizable cookie banners

Techniques
- Roles, traits, and properties
- Correct usage of HTML, ARIA, and Javascript
- Live region real-time updates
- Focus management
- Content order
- Page structure
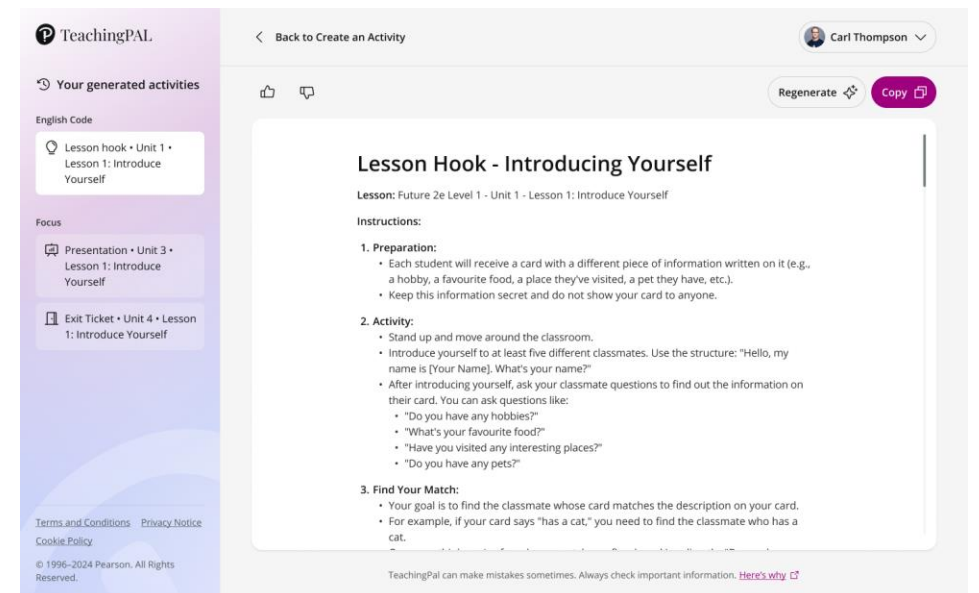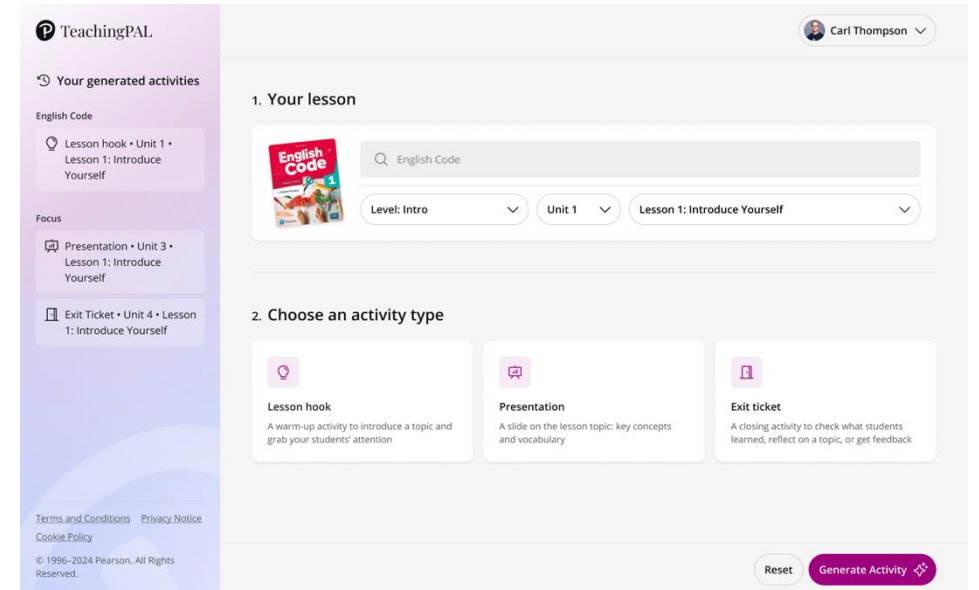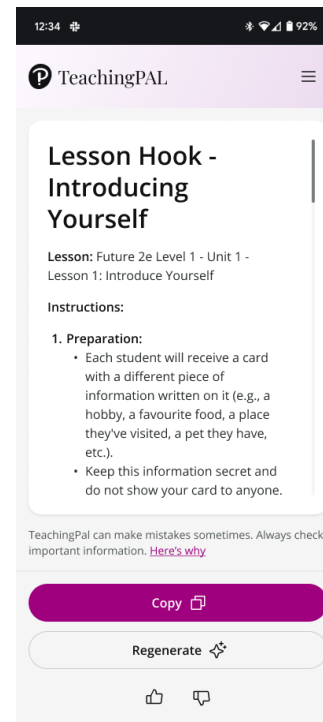
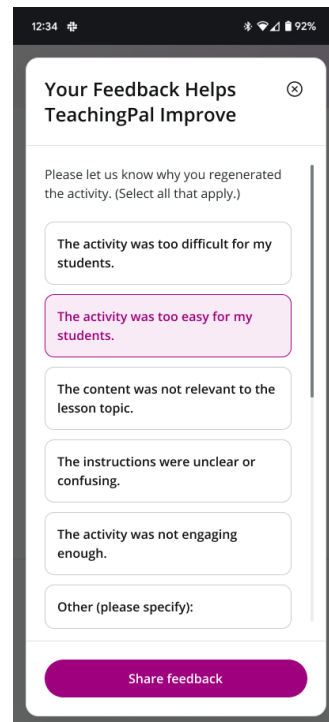*DESIGN SYSTEM USAGE, Example No. 1*

Digital Human
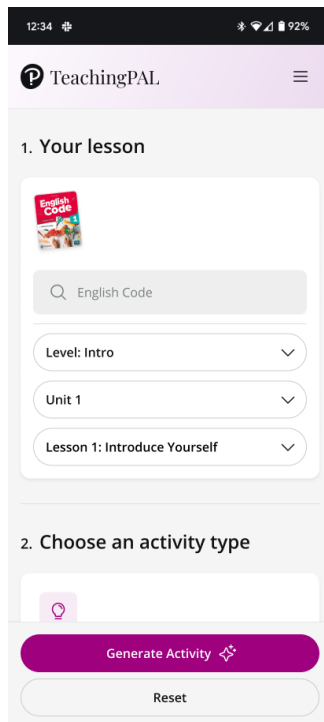
A real-time AI tutor designed to assist learners

with adaptive feedback

Teaching Pal
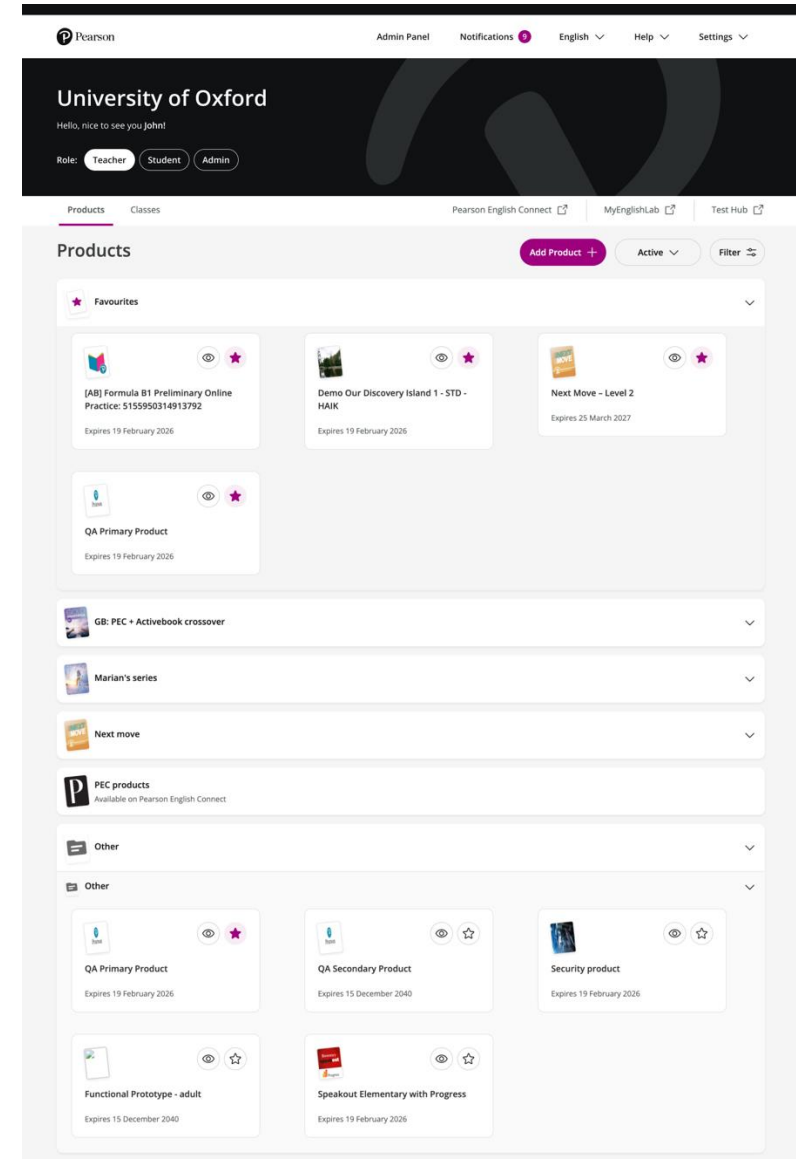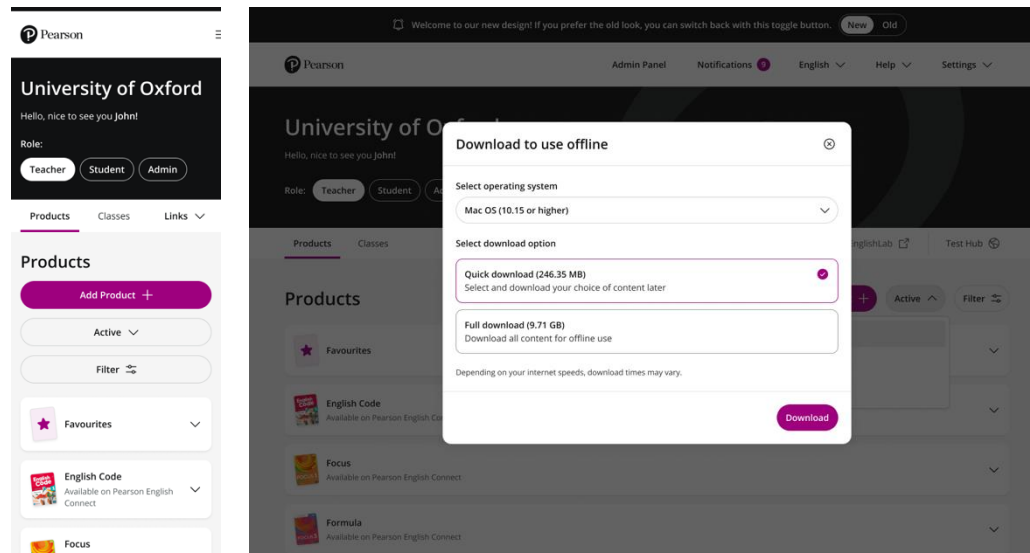
An AI-driven app enabling educators to create personalized

class exercises effortlessly

Pearson English Connect

A comprehensive app suite enhancing language

learning through interactive tools for students and

teachers

Final Thought

Through the Nemo Design System, we ensured accessibility isn't an afterthought but **a core principle shaping inclusive, scalable digital experiences.**