

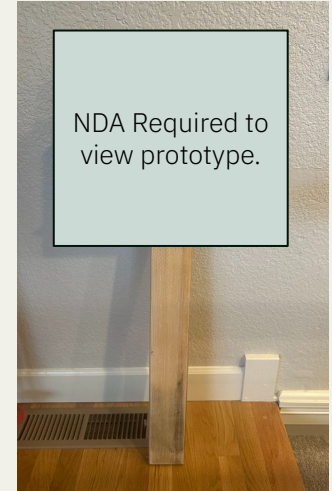
EquiPad Usability Study

Team EquiPad

Jessica Applegate

March 27, 2025

HCDE 517



EquiPad: a period product dispenser

Problem: Prototype needs testing to finalize design decisions before **Summer 2025** soft launch.

My Role: Research Plan Development, Lead Session Facilitator, and Survey Designer

My team: 3 women enrolled in in HCDE Graduate program—2 PMs, 1 Designer, and 1 Researcher (me!)



What is Equipad's Goal?



Equipad's goal is to make comfortable, sustainable period products free and **available in all public restrooms.**

Study Goals

Our goal was to evaluate the usability of their dispenser prototype using quality components of Usability—efficiency, learnability, and ease of use.

Our **research aimed to provide actionable insights** that **inform last-minute design adjustments** and long-term adoption plans.

Evaluate

- Efficiency
- Learnability
- Ease of Use

User Groups

- Custodial Professionals (n=4)
- Menstruators (n=3)

Research Questions

Identifying usability issues

1. What are the **major difficulties** users encounter **when restocking** the EquiPad?
2. What are the **major difficulties** users encounter **when dispensing a pad** from the EquiPad?

Competitive edge and potential improvements

3. How is EquiPad different from existing period product solutions?
4. What improvements can be made to EquiPad to ensure the intuitive use of the product, even for general users?

Methods, Tasks, and Metrics

02

Methods

We combined several methods to get a holistic view of the user experience.



Usability Testing

- Moderated in-person testing with an early prototype using think-aloud protocol



Semi-structured Interview

- Used to allow for natural conversation to emerge while still collecting valuable data about the product.



Survey/Questionnaire

- Pre- and Post-questionnaires used to collect demographic information and experiential data

Methods

Method	Description
Usability Testing	Moderated in-person sessions using a think-aloud protocol.
Semi-Structured Interviews	Follow-up conversations blending open-ended discussion with key questions.
Pre- & Post-Study Surveys	Collected demographic data and tracked perception changes.

Usability Test Tasks

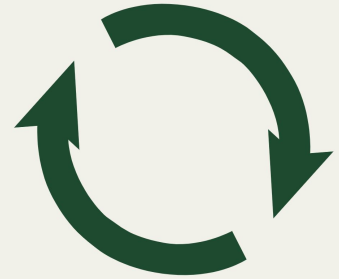
We designed **two key scenarios** that mirrored typical interactions with the EquiPad dispenser from the **custodial** and **menstruator** perspective.



Clean the prototype



Dispense from the prototype



Restock the prototype

Scenarios



Scenario 1

Imagine you are the employee responsible for cleaning and restocking the EquiPad dispenser. You come across the dispenser, it is empty and needs to be refilled of both pads and tampons.

- **Task 1:** Please tell me how you would **clean** this **dispenser**.
- **Task 2:** Please **restock** the **dispenser**.

Scenario 2

Imagine you are using the bathroom and realize you just started your period. You don't have any period products on your person and are wondering what to do next.

- **Task:** Please **dispense** a pad.

Our Metrics

During our Usability Test sessions we tracked several metrics to quantitatively assess usability based on **efficiency** and **learnability**. These metrics provided a comprehensive evaluation of the dispenser's usability, helping us identify **refinements before the soft launch**.



- Success rate (Pass/Fail)
- Task step count
- Task error rate
- Time to task

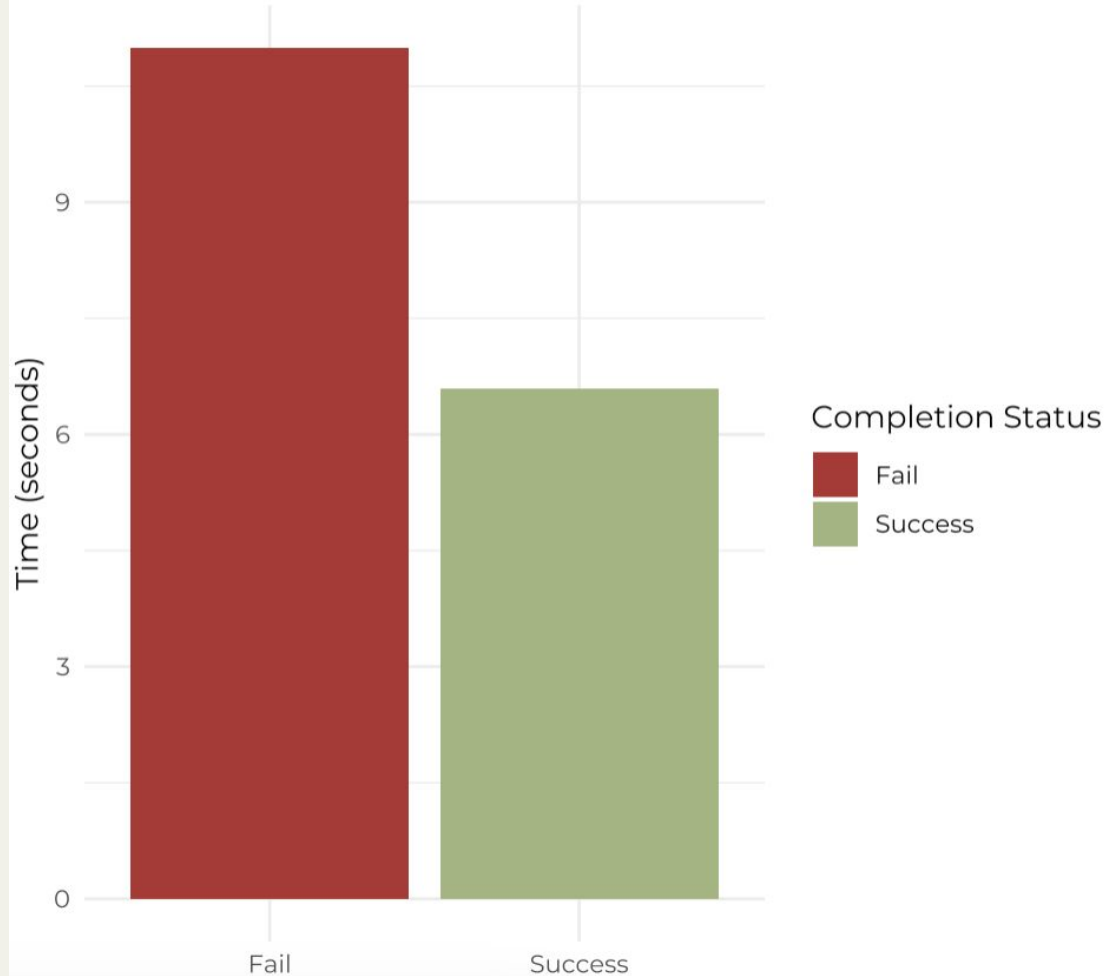
Findings

03

FINDING 1:

Dispense is time consuming and inefficient

Time and Success for Dispense Task



On average, during our test, it took our participants **8 seconds to dispense** a pad from the prototype.

When compared to similar products, this **task** is **significantly longer** and **more difficult** to complete with the **EquiPad Dispenser**.



Dispense Recommendations



Widen the dispenser

This change will **reduce friction, improve efficiency**, and make **dispensing smoother**, decreasing interaction time and user effort.



Reduce product waste

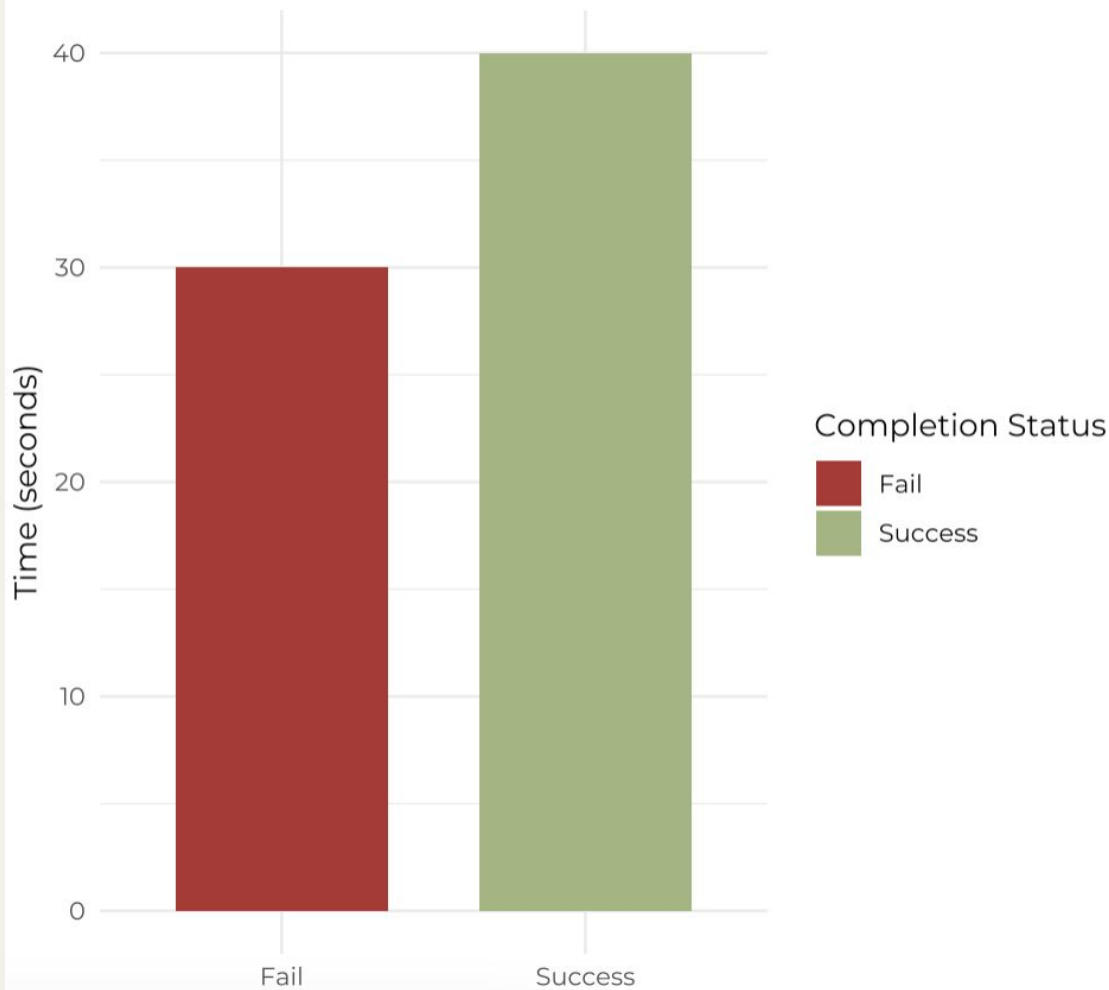
Current roll design **does not fully support effective product retrieval**, as the last few pads become inaccessible.

Adding an extension to the roll will enhance accessibility, ensuring all pads can be dispensed while also **reducing product waste and operational costs**.

FINDING 2:

Restock Experience is Time Consuming

Time and Success for Restock Task



The restocking process does not quite match what custodial professionals were used to in real-world settings.

One of the main issues was that the process added extra steps and time, which didn't align with the fast-paced nature of their work.

“

“It's **slightly time consuming**... in the mornings, when you are **rushing**, you have a whole bunch of stuff to get done, like restocking bathroom products, and taking **extra time** to do that can be a little **irritating.**”

Restock Recommendations



Spring Load Mechanism

- This would reduce the need for perfect alignment which would **streamline a restock.**



Add an Indicator

- A light or distinctively colored pad near the end of the roll would **improve system status visibility.**



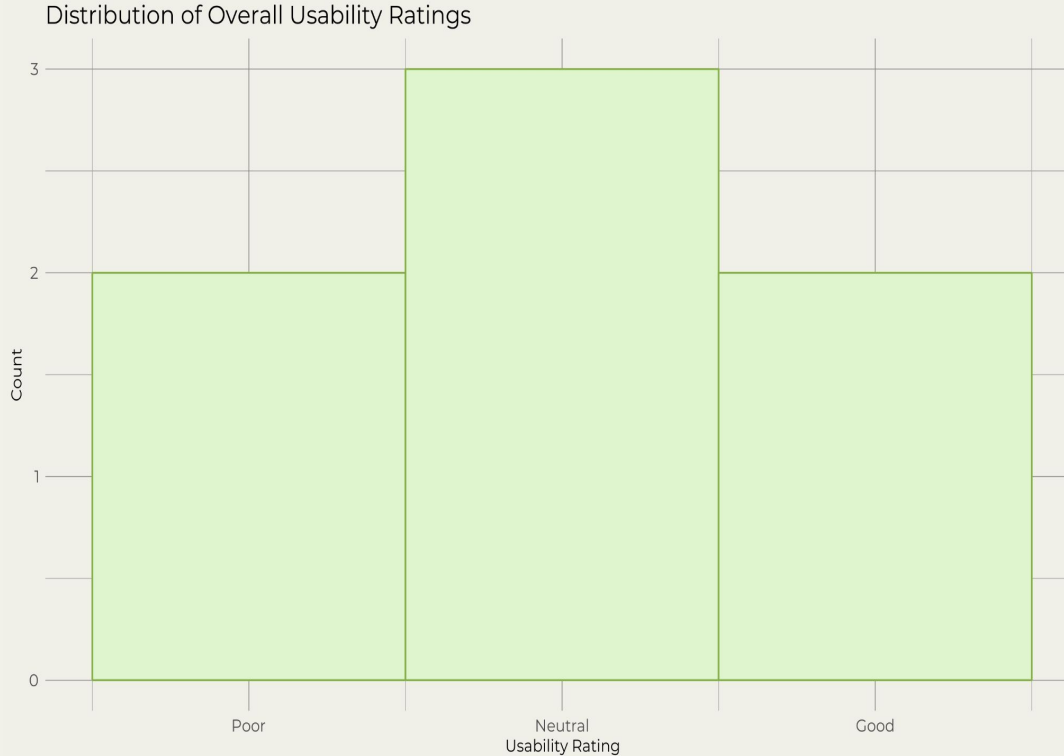
Modify View Panel

- **Swapping out the clear view panel for** frosted plastic or reducing the size of it would balance usability and aesthetics while maintaining product integrity.

FINDING 3:

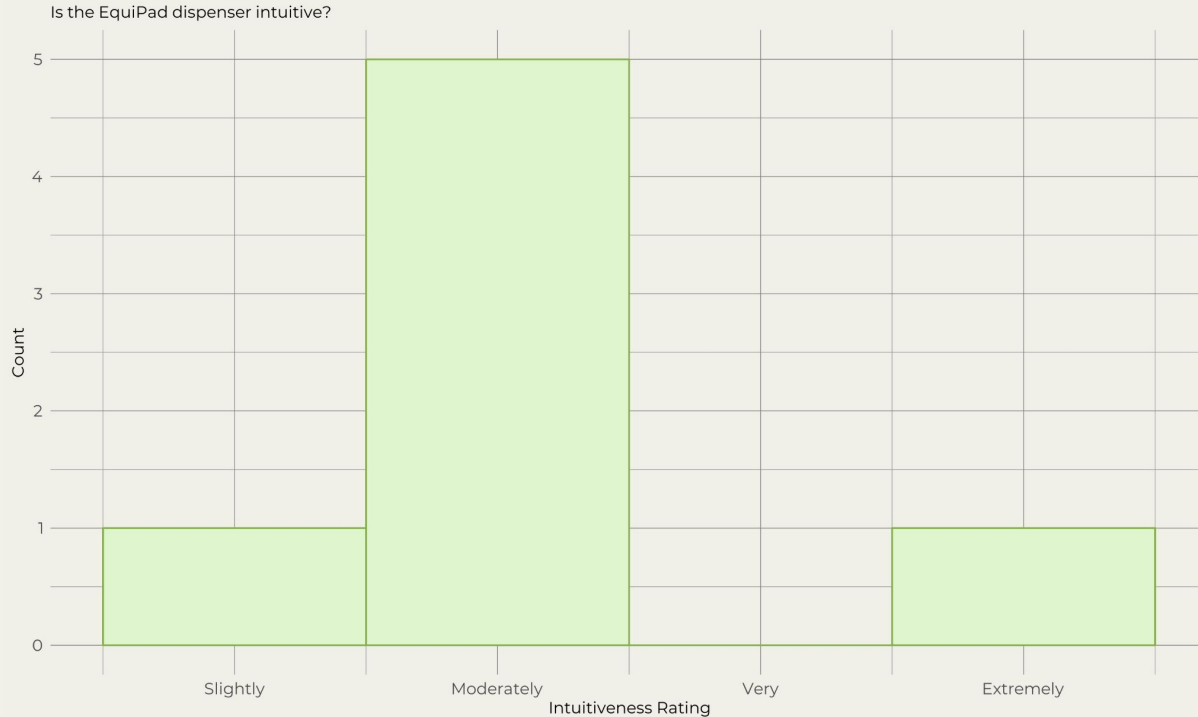
Design can be made more efficient and intuitive

Overall Usability Ratings



Most participants felt **neutral on the usability**. This implies that design choices can enhance the usability of the product.

Is the Equipad Dispenser Intuitive?

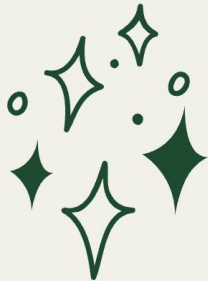


While 5 of our participants found

Design Choice Recommendations

100% of participants thought the product was an interesting idea, but did not see it as something they'd like to use again.

Increase Appeal



Signage & Branding



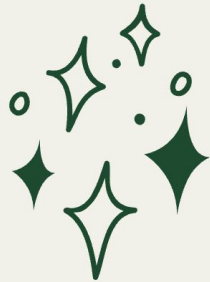
Improve Roll Design



Design Choice Recommendations

100% of participants thought the product was an interesting idea, but did not see it as something they'd like to use again.

Increase Appeal



- Participants felt that the dispenser **resembled existing, bulky, public options.**
 - A more **modern, sleek design** would make the dispenser more visually appealing, setting it apart from current dispensers and encouraging user interaction.

Design Choice Recommendations

100% of participants thought the product was an interesting idea, but did not see it as something they'd like to use again.

Signage & Branding



- Participants mentioned EquiPad's **resemblance to a toilet paper dispenser**.
 - To address this, Clear signage and **intuitive visual cues**, such as simple **icons**, would **eliminate confusion** and make the dispenser easier to understand.



Design Choice Recommendations

100% of participants thought the product was an interesting idea, but did not see it as something they'd like to use again.

Improve Roll Design



- Participants criticized the current roll design as **inefficient** and **difficult to manage**.
 - **To address this, we recommend** A more stable roll design with a cardboard core to **streamline** dispensing and restocking, making it easier to use.



Reflection

04

Reflection



We had a **mere 10 weeks** from start to completion. **Knowing what I know now**, I think I'd **start recruiting efforts earlier**.

We ended up with a solid participant pool, but I would have liked to have included custodial professionals from different institutions to see if their perspective differed.

Thank you!

