

**Date:** Thursday, January 2 2020 05:17 PM  
**Subject:** Re: UX research readout session -- FEEDBACK  
**From:** Justin Tokarski <justin.tokarski@tcs.com>  
**To:** Katare; Parag; Poe <parag.katare@walgreens.com>; Emma <emma.poe@walgreens.com>;  
Dale; Steven; Velez <steven.dale@walgreens.com>; Christine <christine.velez@walgreens.com>;  
**CC:** Latosha Noakes; Dzienisowicz <latosha.noakes@tcs.com>; Victor Elliot <victor.e1@tcs.com>; Gosia  
<gosia.dzienisowicz@wba.com>;  
**Attachments:** Research Report V4 Presentation .pptx(1).pdf

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\*I apologize if this is a duplicate message. It is unclear in my email history if this was already sent or not.

Hi Emma,

Please find attached a more condensed version of the report for the presentation. I didn't want to lose too much information, so I created a presentation version of the report for use on Friday which I can also bundle with the larger report to share out.

Thanks and Regards,

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**From:** Katare, Parag <parag.katare@walgreens.com>  
**Sent:** Thursday, December 26, 2019 12:15 PM  
**To:** Poe, Emma; Justin Tokarski  
**Cc:** Dale, Steven; Velez, Christine; Latosha Noakes; Victor Elliot; Dzienisowicz, Gosia  
**Subject:** RE: UX research readout session -- FEEDBACK

"External email. Open with Caution"

++ Victor

Thanks,  
Parag Katare  
Architect – TCS  
Cell # 224-578-6164

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**From:** Poe, Emma  
**Sent:** Tuesday, December 24, 2019 9:55 AM  
**To:** Justin Tokarski <justin.tokarski@tcs.com>; Dzienisowicz, Gosia <gosia.dzienisowicz@wba.com>  
**Cc:** Katare, Parag <parag.katare@walgreens.com>; Dale, Steven <steven.dale@walgreens.com>; Velez, Christine <christine.velez@walgreens.com>; Latosha Noakes <latosha.noakes@tcs.com>  
**Subject:** Re: UX research readout session -- FEEDBACK

Hi Justin,

Thank you for making the changes to the deck. We've reviewed it, and the changes are definitely going in the right direction. However, we still feel that the deck is not entirely ready to be presented to executives on the business team. We have the following feedback and requests for revisions. Please let us know if you have any questions:

**Feedback on structural elements:**

- Think of ways you might be able to reduce the amount of words on a slide, or bold the main subject

of each bullet so viewers can quickly scan and digest the info

- We're noticing some typos, for example on slide 13 it should say 'employed' instead of 'employees'. It might be good to run through the words with a fine-toothed comb
- Consider having a designer comb through the deck and make it more visually polished. I used to do that with decks before I presented to the client when I was a consultant.
- When information continues from one slide to the next with the same header, consider having all the info for one header in one slide, or if it's not possible, then add '(Cont'd)' to the end of the title on the continued slide to help with wayfinding
- Consider having the title of each section as the header of each slide. We notice you have different titles within the same section. Having the same title will help with wayfinding within your deck. For example, the "Research Timeline" section has the headers, "Initial Plan" and "Research Barriers." I would have the header be "Research Timeline" on all slides in the section.

#### **Feedback on content:**

- Too many slides in the beginning of the deck are utilized to talk about timeline, planning and methodology, but really the bulk of the presentation should be spent discussing what you learned and your deliverables. Perhaps consider moving some of those details to an appendix and jump in to the findings more quickly
  - We recommend moving the Research Timeline section, especially, to the appendix, and just lay out the methodology that was actually used for the research. Presenting the Timeline section first sets a negative tone. Some members of the Business Team shared that sentiment in a meeting I had with them. Also, I did warn Bob when we had the initial kickoff meeting that recruiting had to start immediately, because your team should plan for a 6-week recruiting timeframe. So when this is listed as an unforeseen barrier within the readout, you are likely to get the response from some people on the Renewal team that this should have been planned and compensated for from the beginning.
- The Research Summary section starts out with what I would put for the first page of the methodology section
- Consider moving the Risks section to the appendix. Instead, we would recommend more research in order to increase confidence, identify outliers, etc in your "Next Steps" section. So essentially, instead of highlighting the negatives, talk about what steps you plan to take to overcome some of these issues you ran into, thus presenting it in a more positive light to the Renewal team. It is important to convey this, as a couple field team members of the Business team who were present at the readout did not agree with some of the findings. You can make the point that research is iterative, and you will build confidence and hone in findings as you conduct more research moving forward.
- Consider ways to present the high-level findings from the touchpoint analysis, rather than showing screenshots of the actual spreadsheets. Include the spreadsheets in the appendix. People are not going to take the time to read the spreadsheet images during your presentation, and it will probably be best to just say, "here are some of the main things we learned based on our touchpoint analysis."
- Consider moving the original persona images to the appendix, and just show the latest ones, describing some of the essential characteristics of each as you present them.
- What is the difference is between the 'High Level Finding' sections of your readout and the "Research Insights" section? Is the latter a culmination of all the high level finding data? It might be good to explain that. Maybe even consider only presenting the Insights, as it will be most valuable to the team to understand your synthesized data.
- Consider moving the Clickable Mockup Story to be located immediately after you present the personas. Perhaps even present them 1:1, so for example, Abby's persona poster, then her mockup story and so on. Also, for the purposes of the presentation, summarize the mockup stories with bullet points, and have the full stories in the appendix.

Thanks!  
Emma

--  
**Emma Poe**



**Sr Design Researcher, Renewal**

Walgreens Boots Alliance

Mobile +1 (510) 316-7298

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**From:** Justin Tokarski <[justin.tokarski@tcs.com](mailto:justin.tokarski@tcs.com)>

**Date:** Friday, December 20, 2019 at 1:31 PM

**To:** "Dzienisowicz, Gosia" <[gosia.dzienisowicz@wba.com](mailto:gosia.dzienisowicz@wba.com)>

**Cc:** "Katare, Parag" <[parag.katare@walgreens.com](mailto:parag.katare@walgreens.com)>, "Dale, Steven" <[steven.dale@walgreens.com](mailto:steven.dale@walgreens.com)>, "Poe, Emma" <[emma.poe@walgreens.com](mailto:emma.poe@walgreens.com)>, "Velez, Christine" <[christine.velez@walgreens.com](mailto:christine.velez@walgreens.com)>, Latosha Noakes <[latosha.noakes@tcs.com](mailto:latosha.noakes@tcs.com)>

**Subject:** Re: UX research readout session -- FEEDBACK

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Gosia,

Thank you for the feedback from you and your team. I believe I have addressed most of the concerns that were brought up. I have attached the presentation using the Walgreens presentation format. Please let me know if I have properly applied the template.

Thanks and Regards,

**Justin Tokarski**

Hybrid UX Researcher & Designer

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+1 248 408 6053

<https://tcs.com/interactive>

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**From:** Dzienisowicz, Gosia <[gosia.dzienisowicz@wba.com](mailto:gosia.dzienisowicz@wba.com)>

**Sent:** Wednesday, December 18, 2019 4:24 PM

**To:** Justin Tokarski

**Cc:** Katare, Parag; Dale, Steven; Poe, Emma; Velez, Christine

**Subject:** Re: UX research readout session -- FEEDBACK

"External email. Open with Caution"

Justin,

Thank you for presenting to our internal team the research findings yesterday. I believe some of that feedback was already addressed by Parag & some might be stating the obvious. Here is all our collective feedback:

- Please make sure that all relevant UX team members are invited beforehand: Christine, Emma, Luis, Manny, Steve & myself. I was made aware Manny & Luis were not invited hence were not present.
- Please make sure you test the equipment in the room. This happened to all of us, but since we have so little time, we must ensure all is working correctly for all participants in the room and on the phone.
- If you are presenting from a PDF, please use a full-screen mode. As discussed, we should be seeing all future presentations using our Renewal templates including our logos, fonts and colors.
- The slides were very text heavy. If that is the case in the future, I would like to request you share the slides 24 – 48 hours in advance to allow everyone to digest and form questions.
- It seems again that we run out of time, so if you need more than an hour to meaningfully present results, please schedule an appropriate amount of time.
- Justin, you seemed to assume everyone present in the meeting was familiar with the background of your research.

There was almost nothing in the way of

- -- introductions,
- -- context setting,
- -- understanding who was present (either in room or on the phone),
- -- no executive summary,
- -- no information introducing timelines e.g. what you've done so far and what are next steps,
- -- no information about what it all means and how you plan to implement these findings into the designs,
- -- what are research recommendations for designs.
- We understand why you had barriers to research, we also feel, we conveyed that message very early on so that you would need to start recruiting immediately due to the 6 week lead time. We see this is a huge risk moving forward. **I assume you already connected with Tommi & Emma to discuss RIAB and Feedback Forum moving forward?**
- Since you were not able to observe the pharmacy behind the counter as expected when you arrived or that the team members were too busy, we already see that the findings in your research are already very different from our own observations and hence making challenging to accept your findings as credible.
- We were glad to see that your team was able to build on the personas. We've realized our current personas could stand to be more actionable. However, we are concerned that your participant count was lower than ideal and your segmentation not representative enough for conducting a thorough and detailed discovery study that provides enough information to be able to build the product and all its nuances from scratch.
- **We are all eager to see how your research findings will feed into the designs.**

Overall, in the current format we do not recommend presenting to Kayla tomorrow. Understanding however she is on PTO until January and given rigid deadlines, assuming the feedback above will be addressed, let's keep that meeting on the calendars.

Thank you,  
Gosia

Gosia Dzienisowicz  
Dir User Experience | Renewal  
Walgreens Boots Alliance  
1435 Lake Cook Rd, Deerfield, IL 60015  
Mobile: +1 312 912 5522

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**From:** [parag.katare@walgreens.com](mailto:parag.katare@walgreens.com)  
**When:** 1:30 PM - 2:30 PM December 17, 2019  
**Subject:** UX research readout session  
**Location:** 1435-1S1(VC)

We will meet in room 1S1.

I am scheduling research readout session to UX and Business group prior to meet with other stakeholders.

Jill,

Please forward invite to other team members also.

Thanks,  
Parag Katare

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### Join Microsoft Teams Meeting

+1 312-270-1953 United States, Chicago (Toll)

Conference ID: 502 486 265#

Join with a video conferencing device

[62240257@t.plcm.vc](tel:62240257) VTC Conference ID: 1114497910

Alternate VTC dialing instructions

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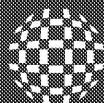
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*Renewal*

# Rx Fulfillment

## Research Report Presentation

December 2019



Walgreens Boots Alliance

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# Contents

4	Research Timeline
7	Research Methodology
9	Research Summary and Risks
13	Observation High Level Findings
17	Interview High Level Findings
22	Contextual Inquiry High Level Findings

# Contents

26	Research Deliverables
36	Research Insights
44	Design Recommendations
50	Mockup Story
54	Next Steps



# Research Timeline

## PRE-TESTING

During this phase, the sponsor selects the defense and target items based on overall performance.

## TESTING

The defense items are tested first, which provides the sponsor with a baseline comparison point. All target items are then tested and compared to the defense items.

## NEW USERS

New users add new items as well as add items already in the product.

## PAGES

Product labels, etc.

## MAIN PAGES

Product Overview, Product Evaluation, Product Profile, Demographic, etc.

## DEFENSE TEST

During this phase the target evaluates the functionality of the product's defense.

## NEW USERS

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## MAIN PAGES

Product Overview, Product Evaluation, Product Profile, Demographic, etc.

## RESEARCH TIMELINE - INITIAL PLAN

**Based on initial project discussion the following research plan was developed**

- Onsite Observations
  - Our observation methodology includes a mix of quantitative observations of common behaviors to establish behavioral frequency and qualitative observations to inform behavioral insights
- Contextual Inquiries
  - Contextual inquiry is a mixed methods research technique employing elements of semi-structured interview and task observation with Think Aloud protocol
- Pharmacy Self-reports
  - Self-report sheets would be given to pharmacy employees to establish frequency of different behaviors



## RESEARCH TIMELINE - RESEARCH BARRIERS

### Research planning revealed a number of unexpected barriers which required modifications to the research plan

- Pharmacy Access
  - Lead time for pharmacy access was 6 weeks
  - Pharmacy visits could only occur from 10:00 AM - 3:00 PM
- Employee Access
  - We were unable to conduct Contextual Inquiry sessions with Pharmacy Employees
  - The Self-Reports largely went unfilled as there was not enough time for employees to use them
- Total Participant Number
  - Access restrictions meant that we were unable to include as many locations or participants we initially targeted




# Research Methodology



### Once we fully understood the existing barriers we modified our research plan

- Onsite Observations
  - 3 TCS researchers conducted Onsite Observations at pharmacies in the greater Chicago area
  - 8 pharmacies representing Tier 1/2 & Tier 3/4/5 pharmacies were observed
- Pharmacy Self-reports
  - Rather than functioning as a primary data source the filled self-reports were used to validate the observations made at the corresponding pharmacy
- Interviews
  - 8 total interviews were conducted with current and former pharmacy employees
- Contextual Inquiries
  - 2 Contextual Inquiry sessions were conducted at the Innovation Lab



# Research Summary and Risks



## RESEARCH SUMMARY AND RISKS - RESEARCH ARTIFACTS

Based on our research analysis we produced the following research artifacts

- 1 Touchpoint Analysis
- 3 Personas
  - Technician
  - Pharmacist
  - Pharmacy Manager
- 1 Sitemap

## RESEARCH SUMMARY AND RISKS - RESEARCH RISKS

### The research plan modification presented several risks to the research conclusions

- Reduced total pharmacy locations and research participants
- Limited pharmacy access
  - Contextual Inquiries could not incorporate the physical aspects of pharmacy activities or some key tasks such as processing insurance
- No direct recordings of Interviews, Contextual Inquiries, or Observations
  - Reliance on researcher notes and rough transcripts increases the possibility of human error and missed data points



## RESEARCH SUMMARY AND RISKS - RISK MANAGEMENT

### We took the following steps to mitigate risks to research results

- Included multiple researchers during research sessions when possible
- Validated onsite observations during Interviews sessions
- Compared quantitative observational data with similar user metrics when available
- Incorporated more SMEs to validate research findings
- Added additional research time to maximize pharmacy access
- Added an additional researcher to focus on capturing regional differences, external regulations, and internal protocols



# Observation High Level Findings



## OBSERVATION HIGH LEVEL FINDINGS - PHARMACY DIFFERENCES

**Based on observations and subjective perspectives of Interview subjects we identified the following differences between efficient and inefficient pharmacy practices**

- Efficient pharmacies tended to
  - have employees focus on specific tasks for longer periods of time
  - require infrequent direct coordinate with other employees
  - need less employee assistance when processing patients
  - have one person directing pharmacy tasks
  - require less focus on waiters to stay within promise time
  - have fewer employees significantly moving around the pharmacy
  - address call backs earlier in the day

## OBSERVATION HIGH LEVEL FINDINGS - PHARMACY DIFFERENCES cont'd

- Inefficient pharmacies tended to
  - show more frequent employee task switching
  - require more direct communication between employees
  - have employees processing patients require assistance
  - lack a singular voice directing the pharmacy
  - be disrupted by patient arrivals
  - have more movement around the pharmacy by technicians



## OBSERVATION HIGH LEVEL FINDINGS - CONSISTENT BEHAVIORS

### Several observations were consistent across pharmacy locations

- An outsized portion of employee time is spent on the phone
- Informal 'consultations' (i.e. taken at the consultation window without an accompanying prescription) often seem largely unnecessary to Pharmacists to take
- There is a consistent difference between Morning and Afternoon tasks
- Certain tasks, typically sorting prescriptions, function as in-between tasks which are addressed when moving between other primary tasks



# Interview High Level Findings



## INTERVIEW HIGH LEVEL FINDINGS - VARIATION IN PERCEPTION OF EFFICIENCY

### **There were marked differences between senior staff and non-management staff**

- Senior Technicians and Pharmacy Managers claimed that Core Workflow “almost always gets it right”
  - There was a belief that a lot of inefficiency stemmed from not following the task recommendations
  - They shared a general perception that users overestimated their ability to properly address task order
- Technicians and Pharmacists believed that they understood the most efficient approach to managing pharmacy tasks
  - Tended to prioritize tasks they were comfortable with
  - Generally distrusted the recommendations and intelligence of the system
  - Perceived required tasks such as Smart Count as unnecessary

## INTERVIEW HIGH LEVEL FINDINGS - VARIATION IN PERCEPTION OF EFFICIENCY cont'd

### Significant gaps in trust

- There was widespread mistrust of inventory numbers both when reported by the system and other staff members
- A majority of Pharmacists we spoke with thought they understood laws and regulations better than the system
- It was reported that improper overrides for coupons occurred because users did not trust the system to properly process coupons and trusted their understanding of the coupons system more
- Users reported that they felt their coworkers were less capable or knowledgeable than them, with the exception of new hires
- We heard multiple reports of improper behavior which was largely attributed to the desire to keep below promise time



## INTERVIEW HIGH LEVEL FINDINGS - HIGH STRESS

### Errors resulting from stress

- We heard multiple reports of improper behavior which was largely attributed to the desire to keep below promise time
  - We were told that pill bottles had been found to contain more than one medication
  - We also heard that prescriptions returned to the shelf were sometimes poured back into the stock bottles, including one instance of this occurring with a liquid medication
- All participants expressed a high level of stress in trying to meet promise time and the belief that, given current levels of staffing, promise time was unreasonable while following proper procedure

## INTERVIEW HIGH LEVEL FINDINGS - ARBITRARY BARRIERS

### Design decisions seem to artificially frustrate tasks

- Users claimed they did not understand the need to have tasks, such as administering vaccinations, spread across multiple systems
- Similarly, they were frustrated by the need to navigate through multiple pages to complete basic tasks
- To get around some restrictions users reported adding unrelated information to data fields which could cause issues in the future
- There was frustration expressed that identifying certain pieces of information, such as how much stock of a generic is made by a specific manufacturer, requires going to the shelf instead of being directly represented on the screen





# Contextual Inquiry High Level Findings

## CONTEXTUAL INQUIRY HIGH LEVEL FINDINGS - NAVIGATION FRUSTRATION

### There are significant barriers to efficient navigation

- Hotkeys were identified as helpful for navigation, but participants only could identify the function of 5 hotkeys without assistance
- The ability to navigate through clicks vs. tabs is inconsistent across pages
- Tasks which require information from multiple pages are disrupted by hard navigation shifts
- Specific tasks, such as processing vaccines, seem to have arbitrary design restrictions
- The primary navigational methods require hard tasks shifts which unnecessarily increases cognitive load
- Navigating by the characteristics of specific items (i.e. patient) are arbitrarily restricted to single items



## CONTEXTUAL INQUIRY HIGH LEVEL FINDINGS - PAGE CONTENT

### **There are significant deficits in informational content on pages**

- Prescription fulfillment may need aspects of prescriber details, insurance details, and medical history
- Differences between calls involving patients, prescribers, and insurers are not present
- Methods of addressing insurance errors or blocks are not readily accessible
- Explanations of visual elements of the application are lacking
- Unnecessary and disabled icons are persistent across many screens

## CONTEXTUAL INQUIRY HIGH LEVEL FINDINGS - TASK SEGMENTATION

### Workflows are consistently interrupted

- Steps in specific tasks are spread across multiple pages
- Taking users away from the context which prompted the initial action causes unnecessary strain
- When task switching is necessary, such switches are hard to make while the previous state for easy access





# Research Deliverables

# RESEARCH DELIVERABLES - TOUCHPOINT ANALYSIS

## Methodology

- A Touchpoint Analysis is a UX exercise which identifies why and how frequently people come to a system using certain characteristics
  - Touchpoint - The reason a user comes to a system
  - Frequency - How often that reason drives a user to a system
  - Driver - The situation which prompts the Touchpoint
  - Info Context - The information needed to address the Touchpoint
  - Design Patterns - The functions needed to achieve the Touchpoint
- The Touchpoint Analysis is used to inform design choices




# RESEARCH DELIVERABLES - TOUCHPOINT ANALYSIS cont'd

Prescription Fulfillment							
I want to...	Frequency (times / day)	Drivers	Info Context	Pharmacist	Pharmacy Technician	Pharmacy Manager	Notes
refill a prescription	15.0	<p>Patient walked in with empty bottles for a refill</p> <p>Patient walks in requesting prescription</p> <p>Pharmacist called in refill for a patient</p> <p>I was notified on auto-refill to stock</p>	<p>prescription history</p> <p>my pharmacy stock for this prescription</p> <p>see if another location has a drug</p> <p>see all versions, generic and brand</p>	<p>notification</p> <p>search</p> <p>notify</p> <p>master / detail</p> <p>timeline</p> <p>map</p> <p>filter</p>	same	same	<p>Could be done if added to maintenance system.</p> <p>Can we check if prescription information from customer used?</p> <p>Is the split on delivery possible?</p> <p>Expire what else could be useful in creating a prescription?</p>
decide what to work on next	12.0	<p>I am opening the pharmacy</p> <p>I returned for my shift</p> <p>I returned from lunch</p> <p>I received a delivery</p> <p>I was notified that promise time is run long</p> <p>I need to prioritize a wait</p> <p>I was made aware that today's schedule changed</p> <p>it's time for me to check my work</p>	<p>My responsibilities</p> <p>Suggested pharmacy location</p> <p>Task list</p> <p>Suggested task priority</p> <p>Current promise time</p>	<p>Alert</p> <p>Filter</p> <p>Master/Detail</p> <p>Suggest</p> <p>Timeline</p> <p>Triage</p> <p>Proximity</p>	same	same	Thinking process that not all responsibilities are
update a patient's information	20.0	<p>the patient moved</p> <p>the patient has a new phone number</p> <p>insurance has changed</p> <p>patient walked in &amp; dropped off a prescription</p> <p>doctor's office called in a prescription</p> <p>patient new to Walgreens</p> <p>check for any drug interaction notes</p> <p>patient wants to know their prescription history</p> <p>check prescription history</p>	<p>insurance</p> <p>prescription</p> <p>prescription history</p> <p>instructions</p> <p>patient details</p> <p>relationships</p> <p>medical context</p>	<p>master / detail</p> <p>search</p> <p>filter</p> <p>confirm</p>	same	same	<p>Proximity to show in time countdown</p> <p>Recommend after auto-add to patient profile</p>
complete a task	15.0	<p>I'm done with a task</p> <p>I forgot to report that I completed something a while ago</p>	Task list	<p>Confirm</p> <p>Filter</p> <p>Master/Detail</p> <p>Search</p>	same	same	<p>What is in medical context?</p> <p>Patient's current prescriptions</p> <p>Age</p> <p>DOB</p> <p>Insurance</p> <p>Allergies</p> <p>Filter?</p>
add a prescription	14.0	<p>Patient dropped off a prescription</p> <p>A prescription was added to the prescription was received</p>	<p>Scanned prescription image</p> <p>Patient medical context</p> <p>Patient name</p> <p>Patient DOB</p> <p>Substitutions allowed?</p>	<p>search</p> <p>master / detail</p> <p>filter</p> <p>confirm</p>	same	same	Could map to chronic

### Methodology

- We develop our Personas to represent people who exist outside of their job and express a full emotional range
  - Fictional but based on research findings and direct interface with end users
  - Incorporate the world outside of the screen
  - Represent frustrations and pain points as the end user would describe them
  - Allow our designers to ask "What would make her job easier?"
  - Locate external sources of common issues
- We identify key skills needed for our persona's role and the current expected proficiency level





*"Instead of going somewhere in 1 step it takes 7 steps. We don't have time for that."*

**Age** 27 **Friendly**

**Time with Walgreens** 4 Months **Anxious**

**Pharmacy Type** Tier 3 **Energetic**

**Education** Certified PT

### Pharmacy Proficiency

Rx Data Entry	80%
Measuring Medications	80%
Processing Rx Sale	20%
Call Backs	40%
Managing Stock	60%

## TECHNICIAN

# Abby

### ABOUT

Abby has only been working as a technician for a few months. It has been difficult getting acclimated to the pharmacy because she doesn't have any educational background in pharmacology. She feels comfortable working with patients but gets a bit nervous whenever she has to go into IC Plus. She frequently needs to ask for help from a pharmacist or another technician when using IC Plus which slows down the whole pharmacy. Navigating the stock shelves isn't too hard, and she is adept at ensuring rx medication, but when Core Workflow suggests she start answering phones or clearing out the work queue, she asks another technician to switch with her. She wants to get better at using IC Plus but doesn't have the time at the pharmacy to get comfortable with it and hasn't been able to get all the way through the training modules. When she is doing work she is comfortable with the pharmacy it runs smoothly, but when the call list starts backing up or she gets stuck trying to run insurance she gets frustrated with IC Plus very quickly.

### STRUGGLES

- ❖ Lack of training makes IC Plus difficult to navigate
- ❖ Is frequently confused by insurance issues
- ❖ Has trouble applying coupons
- ❖ Doesn't like having Core Workflow redirect her to work on prescription processing as she prefers to work directly with patients
- ❖ When the pharmacy falls behind in the Work Queue problems quickly add up
- ❖ Feels uncomfortable making calls because she forgets how she is supposed to leave messages

### DESIRES

- ❖ Allow me to navigate between different IC Plus pages more easily
- ❖ Provide clear direction for addressing insurance issues and prescription rejections
- ❖ Ensure that the medication counts in the system reflect the actual pharmacy stock
- ❖ Reduce all the slowdown and crashes
- ❖ Let me look through the Work Queue list without having to clear items first
- ❖ I need more time for training without needing to handle pharmacy tasks
- ❖ Meet like-minded people to befriend and travel with



"Everyone should be following the proper workflow."

Age 35

Time with Walgreens 2 Years

Pharmacy Type Tier 2

Education B.S. Pharmacy

Focused

Independent

Jaded

### Pharmacy Proficiency

Prescription Review

Patient Consultations

Filling Prescriptions

Taking Calls

Call Backs

## PHARMACIST

# David

## ABOUT

Pharmacist with 10 years of experience in pharmaceutical services, and graduated from The University of Baltimore in Pharmacy with a B.S. He enjoys balancing work and personal life. David is also organized and structured. He has to manually keep track of the Core Workflow Task List to avoid falling into the red zone. He would like an automated system where task items have to be checked off as they are completed by the designated staff member. Each staff member should then have alert notifications of pending task items before the end of their shift.

At times having to juggle multiple tasks and simultaneous take care of PA can become overwhelming. He can't over- stress the need for a robust system with automation and simplified processes that is stable and not be impacted by lack of performance-freezing.

## STRUGGLES

- System crashes, interacting with multiple systems
- No patient appointment alerts
- Lack of updates on out-stocks, partial fills, and other exceptions
- No process to hire, train, and develop pharmacy technicians
- No easy way to log issues so they get resolved
- Time consuming processes of coordinating, providing immunizations, and handling compounds

## DESIRES

- Staying ahead of things so I can complete my primary tasks, like filling prescriptions
- Ensure each patient gets their correct meds and takes them properly
- Complete my tasks (intake of walk-in scripts, taking calls, stocking, etc.) as quickly as possible
- Have unnecessary call taken care of by the system so they don't interrupt important tasks
- Having better channels for communication would be great to keep my staff engaged
- Need a way to view all the tasks for the day so I can prioritize and plan accordingly





*"I don't want to be the pharmacy manager that enforces tardiness."*

**Age** 38 **Structured**

**Time with Walgreens** 2 Years **Confident**

**Pharmacy Type** Tier 5 **Helpful**

**Education** M.A. Pharmacy

### Pharmacy Proficiency

Team Coordination	100%
Training Employees	80%
Prescription Review	90%
Filling Prescriptions	85%
Patient Consultations	75%

## PHARMACY MANAGER

## Owen

## ABOUT

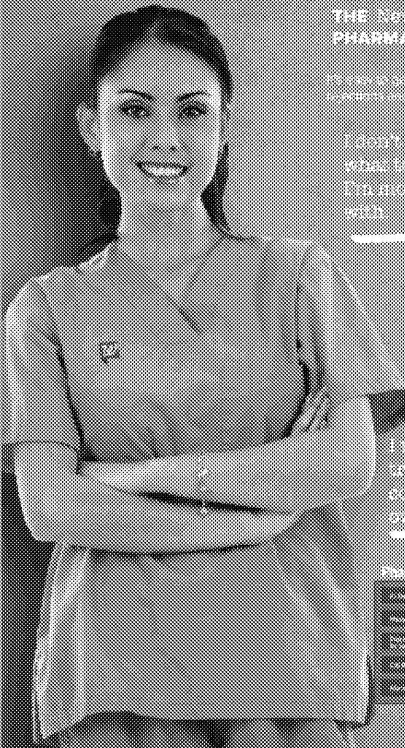
Owen has been working as a Pharmacist for a long time and he seen what does and doesn't work. He has been a Pharmacy Manager at his current pharmacy for the past 4 years and runs a very tight ship. His pharmacy is informally known as the training pharmacy for his region so new Pharmacists and Technicians tend to come and go. This can make things difficult, especially when Technicians or Pharmacists know how to do some tasks really well and try to avoid having to learn the other important aspects of the job. He tries to be helpful with new hires, but also knows that he has to be firm, otherwise the pharmacy would quickly fall behind. To keep up everyone has to be moving all the time. He does wish that some of the busy work could be filtered out, like taking unnecessary patient phone calls or automating parts of the prescription filling process, as that would give everyone more time to help each other out. It can be draining to always be moving, but it's better than finding yourself overwhelmed halfway through the day.

## STRUGGLES

- ❖ The lack of sufficient training in IC Plus, especially for Technicians, slows us down
- ❖ It is difficult to get people to follow the recommendations in Care Workflow
- ❖ When waiters start backing up there isn't a way to easily address just those prescriptions
- ❖ Tasks frequently get backed up to a point where we have to divert people away from their current work
- ❖ We spend way too much time on the phones
- ❖ It's hard to fix mistakes in the system, like inventory counts

## DESIRES

- ❖ Have IC Plus explain how to perform tasks
- ❖ Help users understand why tasks are suggested to them, not just recommend them
- ❖ Allow me to search through and sort the task list
- ❖ Get users to properly check off tasks when they are completed
- ❖ Let us know when something is going to get backed up before it becomes an issue
- ❖ Reduce all of the navigation between different systems
- ❖ Meet like-minded people to bedrind and travel with



"Instead of going somewhere in 1 step it takes 7 steps. We don't have time for that."

# Abby

**THE New PHARMACY TECHNICIAN**

It's easy to get confused by excessive systems and technology.

I don't like being told what to do. I know what I'm most comfortable with.

I hate using technology, but I know what I need to do to survive.

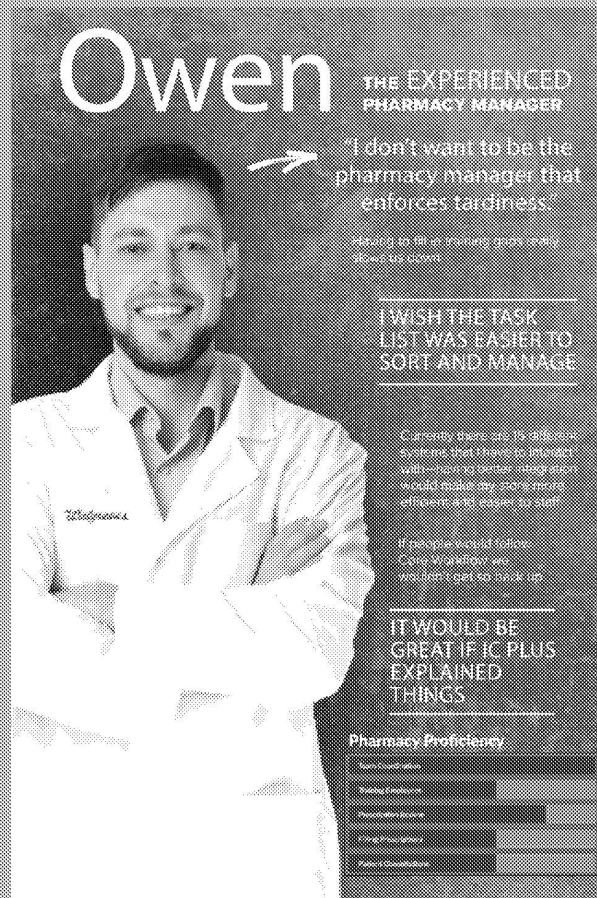
I wish that we had more training time to feel comfortable on my own.

**Pharmacy Proficiency**

1. New Tech	
2. Existing Technology	
3. Computer Skills	
4. Lab Skills	
5. Patient Care	



[illegible]



# Owen

THE EXPERIENCED  
PHARMACY MANAGER

“I don’t want to be the  
pharmacy manager that  
enforces tardiness.”

Having to fill in missing data really  
slows us down

I WISH THE TASK  
LIST WAS EASIER TO  
SORT AND MANAGE

Currently there are 15 different  
systems that have to interact  
with one another. Integration  
would make my work more  
efficient and easier on staff.

If people would follow  
Core Workflow we  
wouldn’t get so back up

IT WOULD BE  
GREAT IF IC PLUS  
EXPLAINED  
THINGS

Pharmacy Proficiency

Task Completion	Progress
Tasking Employees	100%
Prescription Review	75%
Drug Interactions	50%
Patient Consultation	25%





# Research Insights

## RESEARCH INSIGHTS - USER PERCEPTIONS

### Lack of trust in the system

- There is trust gap between management and other employees
- This lack of trust fosters the development of inefficient behaviors and 'tribal knowledge'
  - There are misconceptions regarding legal restrictions on medication approval and sale
- Recommended task flow is often ignored
- Mistrust encourages misunderstanding of the system
- Users assume that their way of working is better than the system's recommendations
  - Users prioritize tasks they are familiar with



### Users are typically responsive instead of proactive

- There is a widespread perception that there is not enough time to respond to all pharmacy tasks
  - Proper procedures are sometimes skirted or completely ignored due to worries of meeting promise time
- Users prioritize task comfort due to the perception that engaging in new or unfamiliar tasks will drag down pharmacy performance
- Unusual task load or unexpected changes in the pharmacy environment are very disruptive to less efficient pharmacies
  - Not enough buffer time to accommodate such changes

### Users believe that corporate doesn't understand their needs

- When there is not a strong leadership voice users think that corporate expectations are impossible to achieve
- Users feel that the issues with IC Plus and Core Workflow should be obvious and easy to solve
  - Hard separation of information across windows, tabs, and Store Net is seen as arbitrary and unnecessary
- Many tasks, such as responding to patient calls, are seen as a waste of time that should be handled in other ways



## RESEARCH INSIGHTS - INFORMATIONAL GAPS

### Information is segmented in arbitrary ways

- Information required for common work flows are arbitrarily separated
  - Navigation between types of information are 'hard shifts' which increase cognitive load and reduce the ability to smoothly move through task steps
- Uncommon or specialized information (i.e. password required for pickup) is currently put into unrelated data fields
  - These fields may not always be visible during the relevant task
- Users are not aware of where to find an explanation of system status colors and navigation options
- Inactive icons and buttons are not explicitly labeled as such and take up unnecessary space
- Users cannot easily view details of items within work queues

### Helpful information in unavailable

- Call back scripts and guides currently need to be memorized
- What are the causes of insurance and coupon issues and how to address them
- Which manufacturers made which versions of generics on the shelf



## RESEARCH INSIGHTS - NAVIGATIONAL ISSUES

### Navigation is inconsistent and made arbitrarily more difficult

- Tabbing works differently across different pages
- Clicking or selecting items functions differently on different pages
- The segmenting of tasks across the current system and areas of Storenet significantly increases the time required to complete tasks

## RESEARCH INSIGHTS - TRAINING GAP

### Current training is seen as insufficient by new users and managers

- Users expressed that current training does not prepare them for actually working in the pharmacy
- The need to have employees quickly onboarded results in rushed and incomplete training
- Current training is not seen as 'hands on' enough and does not present realistic system usage
- Users estimate it takes 5-7 months after initial training is supposed to be completed before developing full competency
- Senior Technicians and Pharmacy Managers feel that they become de facto teachers to new Technicians which is major burden on them and a drag on pharmacy efficiency
- There is a large deficit in user guidance within the current design which could bridge this training gap



A black and white photograph of two men in business attire sitting at a desk. The man on the left is looking at a laptop screen with his hand on his chin, appearing thoughtful. The man on the right is pointing at the screen with his right hand. The background is slightly blurred, showing an office environment.

# Design Recommendations

**Redacted - Highly Confidential Trade Secrets**



**Redacted - Highly Confidential Trade Secrets**

**Redacted - Highly Confidential Trade Secrets**



**Redacted - Highly Confidential Trade Secrets**

**Redacted - Highly Confidential Trade Secrets**





# Clickable Mockup Story

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50

## CLICKABLE MOCKUP STORY - PURPOSE

**The mockup story is developed from the Personas and guides the design process**

- Represents a 'day in the life' of the Personas
- Extends the design value of the realistic Persona into the phase of more detailed design
- Based on common workflows and details gathered from Interviews
- Defines the user tasks built into the clickable mockup story
- Prioritizes the most important aspects of the system to maximize review and iteration time
- Provides a roadmap for interacting with the clickable mockup



## CLICKABLE MOCKUP STORY - WORKFLOW AND TASKS

- Check Task List - 42 items
  - 20 F1 Queue items
    - Some arrived overnight
  - 6 F4 Queue items
  - 11 Call Back items
  - 5 prescriptions restocks
  - Smart Count
- Complete Smart Count and remove from list
- Restock items (removed when items scanned)\*



## CLICKABLE MOCKUP STORY - WORKFLOW AND TASKS cont'd

- Check F1 -10 items
- Complete 1 call back
  - Script & Instructions
- Add patient
- Insurance issue with prescription refill
- Prescriptions waiting to be filled
  - Mild severity
- Check recommended task(s)





# Prescription Pharmacy

## Next Steps

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## NEXT STEPS - FUTURE RESEARCH EFFORTS

- Power Fulfillment Center visit
  - We currently are scheduling a visit to the Power Fulfillment Center to capture the unique needs of those users through Contextual Inquiry
- Clickable Mockup User Test
  - Following design milestone 1 first iteration we will be conducting User Tests with former Technicians and Pharmacists to inform the second design iteration
- Customer Survey
  - We will design a short customer survey to identify ways we can address the comfort and duration of the customer experience, as well as the framework for analyzing the data
- Design Sprint User Tests
  - Every 4-5 development sprints we will be using Research in a Box for conducting User Tests



## NEXT STEPS - FUTURE RESEARCH EFFORTS cont'd

- Validation of initial findings
  - We will develop a short set of interview questions to administer in upcoming Walgreens research sessions to validate our findings with a larger sample size

# Thank you.

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